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QUARTERMASTER

SUBSISTENCE

DEPOT COMPANY

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DEPARTMENT OF THE ARMY • OCTOBER 1951

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FM 10-30

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SUBSISTENCE
DEPOT COMPANY



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BY ORDER OF THE SECRETARY OF THE ARMY:

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Major General, USA
The Adjutant General

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Chief of Staff
United States Army

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. PURPOSE

The purpose of this manual is to provide information necessary for the efficient operation of the Quartermaster Subsistence Depot Company (T/O&E 10-357, August 1949). Users of this manual are cautioned to remember that the grade and number of personnel and the amount of equipment are authorized by T/O&E, and so much of this type of information as is contained herein is illustrative only. The current T/O&E and related changes must be consulted.

2. SCOPE

The scope of the manual covers the mission, organization, and operation of the quartermaster subsistence depot company.

Section II. THE UNIT

3. MISSION

The mission of the subsistence depot company is to provide administrative and technical personnel for the operation of a quartermaster subsistence depot.

4. ASSIGNMENT AND CONTROL

The subsistence depot company is a nondivisional unit assigned to a theater of operations.

a. Communications Zone. When employed in the communications zone, the quartermaster subsistence depot company is normally assigned under the operational control of a Headquarters and Headquarters Company, Quartermaster Base Depot (T/O&E 10-520-1, August 1943). For administrative purposes, it is usually under the command of Headquarters and Headquarters Detachment, Quartermaster Battalion (T/O&E 10-536, August 1948), which may be under further administrative control of Headquarters and Headquarters Company, Quartermaster Group (T/O&E 10-22, August 1949).

b. Army Area. When employed in the army area, the quartermaster subsistence depot company is normally attached to Headquarters and Headquarters Detachment, quartermaster battalion, and operates the army subsistence depot under the administrative control of the quartermaster battalion and operational control of army quartermaster.

5. RELATED UNITS

The company has a direct relation to the following quartermaster units:

a. Headquarters and Headquarters Company, Quartermaster Base Depot. The quartermaster base depot company operating in the communications zone furnishes command and supply supervision for all quartermaster units employed in the quarter-

master section of a general depot or in a quartermaster branch depot.

b. Headquarters and Headquarters Detachment, Quartermaster Battalion. See paragraph 4.

c. Quartermaster Subsistence Supply Company. When employed in the combat zone, the subsistence depot company supervises the distribution of bulk subsistence supplies to supply points operated by the Quartermaster Subsistence Supply Company (T/O&E 10-197, November 1948). The subsistence supply company operates from one to six subsistence supply points.

d. Quartermaster Refrigeration Company, Mobile. The Quartermaster Refrigeration Company, Mobile (T/O&E 10-247, February 1944), provides personnel and equipment for the preservation and delivery of perishable items to supply points.

e. Quartermaster Clothing and General Supplies Depot Company. The quartermaster Clothing and General Supplies Depot Company (T/O&E 10-227, February 1949) may provide an operating platoon to be grouped with operating platoons of the subsistence depot company and the petroleum depot company when a class I, II, III, and IV depot is operated.

f. Quartermaster Petroleum Depot Company. The Quartermaster Petroleum Depot Company (T/O&E 10-377, October 1949) may provide an operating platoon to be grouped with operating platoons of the subsistence depot company and the clothing and general supplies depot company when a class I, II, III, and IV depot is operated.

g. Quartermaster Service Company. The Quar-

termaster Service Company (T/O&E 10-67, July 1948) may be called upon to supply labor for the receipt, storage, and distribution of subsistence supplies. Such personnel will work under the supervision of the depot company personnel.

h. Other Units. The Quartermaster Service Organization (T/O&E 10-500, January 1945) is provided in order that requirements of widely varying character may be met without creating special units or subdividing fixed strength units for each situation. This principle should be followed whenever possible since rear area unit headquarters can administer a much greater strength than combat unit headquarters.

6. CAPABILITIES

When labor personnel are furnished to accomplish a specific mission, the subsistence depot company is capable of—

a. Receiving and storing subsistence supplies and supervising the distribution of bulk subsistence supplies to supply points.

b. Maintaining a reserve storage of subsistence supplies, equivalent to an established operating level for 400,000 men.

c. Using separate platoon operations in establishing advanced and intermediate depots. In addition to the depot headquarters platoon three operating platoons duplicating, for the most part, the functions of the depot headquarters platoon may be used to operate depots at other points adjacent to the parent depot. Operating platoons are responsible for the receipt, storage, and issue of subsistence supplies; the depot headquarters platoon in addition is respon-

sible for maintaining a reservoir of supplies for the operating platoons.

d. Inspecting meat, meat food, dairy, poultry, marine products, fresh fruits, and vegetables by the attachment of an appropriate veterinary food inspection detachment or detachments from T/O&E 8-500.

CHAPTER 2

TRAINING

Section I. TRAINING OF INDIVIDUALS

7. GENERAL

Individual training prepares each member of the Quartermaster Subsistence Depot Company to perform his duties efficiently, accustoming him to share in military teamwork and preparing him for the next higher job in the organization. Every soldier in the company is given basic military training and advanced individual training. Normally, such training is accomplished concurrently if possible at training centers. Basic military training emphasizes individual physical conditioning, discipline, adjustment to army life, and development of soldierly qualities. Advanced individual training develops in the soldier facility in the use of tools, skills, and equipment and teaches him to work effectively as a member of a military team. Basic military and advanced individual training will conform to Army Training Program 10-226, Mobilization. A sample minimum training schedule is given in appendix II. Unit proficiency standards are outlined in appendix V.

8. SCHOOL TRAINING

School training is basic or advanced technical training in specialized subjects given at Army train-

ing schools. The school may be a service school or a school organized by the company commander in the company training area.

a. Service School. The depot commander should recommend suitable officers for attendance at a service school. Enlisted personnel should be carefully selected for attendance at appropriate service schools. Procedures for obtaining quotas for attendance at service schools are outlined in instructions issued by higher headquarters. DA Pamphlet 20-21 lists schools and the prerequisites for attendance.

b. Company School. The company school is an important means of training personnel to meet the requirements of the training program. The school should be used for the training of the individual non-commissioned officer and enlisted specialists and instructors. Since lack of time and facilities may prevent sending noncommissioned officers and enlisted specialists to service schools, refresher training may be conducted in the company school. Instruction in new doctrine and in the use and care of new equipment should also be given in the company school. Preparation for field and operational exercises should be conducted in this school.

9. ON-THE-JOB TRAINING

On-the-job training will be given to each soldier when the advanced individual training has qualified him to operate equipment or perform other occupational duties. At least two men should be trained to perform each specialist's job. Rotation of duties will thereby be achieved and a surplus of experienced personnel provided. In the subsistence depot com-

pany, warehousemen and checkers can be trained to operate fork lift trucks. Fork lift operators can be trained to take the jobs of warehousemen and checkers. Warehousemen should also be familiar with the duties of checkers and checkers with the duties of warehousemen.

10. TRAINING PROGRESS CHART

A training progress chart (fig. 1) should be prepared by the commander of the subsistence depot company to serve as a guide in conducting the training program. The chart will show the status of training of each individual.

Section II. UNIT TRAINING

11. GENERAL

When the subsistence depot company is activated, basic unit training and advanced unit training of the organization conform to Army training programs announced by the Department of the Army. To receive basic unit training, individuals must have satisfactorily completed basic military training and advanced individual training, or their equivalent, as prescribed. Advanced unit training is prescribed by the Department of the Army and must be ordered by proper authority. Advanced unit training provides team training during which the subsistence depot company is integrated to operate effectively with higher echelons.

12. ON-THE-JOB TRAINING

On-the-job training can be given during the basic unit training or during advanced unit training.

TRAINING PROGRESS CHART

BASIC				TECHNICAL												TACTICAL AND LOGISTICAL											
Unit 312th Quartermaster Subistence Depot Company T O & E 10-357 Date 23 Aug 1949				Character Guidance Employment of the Armed Forces Military Courtesy and Customs Guard Duty Map Reading, Elementary Utility Training, Elementary Landmarks and Riverways Adaptation and Group Living Field Sanitation Troop Information Program Supply Economy First Aid Inspections Unit Operations Operational Equipment Supply-General Depot Operations Movement by Air Movement by Rail Substence Supplies Loading and Unloading Storage Property Accountability Field Training Depot Operations, Advanced Observation Trips																							
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Troops should be trained to perform their duties under as realistic conditions as possible. Use should be made of available supply facilities at the training center or school and troops taught their duties while in training at the depot. Wherever possible, the unit training could be aided by actual work in a depot. The unit troop school may be regrouped to give refresher courses in those subjects in which personnel appear weak. If the entire unit cannot be occupied with on-the-job training at one time, sections or platoons may be rotated. While some personnel are occupied with on-the-job training, the remainder of the unit can receive other instructions. If advanced training is being given, alternate courses in field training, specialist training, and advanced unit operations can be given.

13. CADRE

a. This company is provided with a cadre of 19 enlisted men. The cadre is the key group of trained personnel given the unit commander to establish his unit. They are his key men. They serve as instructors for the untrained members of the organization.

b. The unit commander must always be prepared to furnish a cadre for the activation of a new unit. Cadre understudies must be trained concurrently for all key positions.

14. TRAINING REQUISITES

Soldierly qualities must be stressed. Efforts will be made to develop control, discipline, familiarity with weapons, and orderly habits. In addition,

throughout the entire training program the principles of hygiene and sanitation, physical training, safety in training, and security will be emphasized. Chain of command principles will be impressed upon the company through training exercises in leadership, military courtesy, and drill. The soldier-specialist is a soldier first of all and may be used in any way necessary to accomplish the mission of the unit. The following points deserve special emphasis during the training program:

a. Principles of Operation. All company personnel performing stock control and storage tasks should be well grounded in the basic principles underlying good depot practice.

b. Flexibility of Organization. Since many different missions may be assigned to the company, it is essential that the unit be organized in a flexible manner. The company may be operated as a complete unit, or one or more platoons may be detached. The company, or one or more platoons, may operate at a base depot or in an army service area. The number of service troops assigned to the company may vary widely. The company, or one or more platoons, may handle any combination of quartermaster subsistence supplies. It may operate fixed refrigeration facilities with the help of T/O&E 10-500 units. It is imperative that company personnel be trained so that they are competent to undertake readily any type of assignment that may come to them.

c. Nomenclature of Supplies. The many items handled by the company makes it necessary that personnel understand the importance of proper nomen-

clature. Department of the Army Supply Catalog QM 5-56 contains a listing of subsistence items by proper nomenclature.

d. Improvisation. Constant emphasis must be placed on the probable necessity for providing temporary storage facilities with materials at hand in a theater of operations.

e. Tropical and Arctic Climates. Personnel must understand the special problems of depot operation in tropical and arctic climates. Specific training for operation under these conditions should be given (par. 67-68 and app. I, par. 7).

f. Civilian and Prisoner of War Labor. Personnel of the subsistence depot company assigned to supervise work details of civilian and prisoner of war labor should receive instruction in military-civilian relationships and guarding of prisoners of war.

g. Supply Economy. In all phases of training, emphasis must be placed on supply economy. The highest standards must be set up and enforced for the conservation, use, and storage of all individual and organizational supplies and equipment. The subsistence supplies handled by this company are on their way to planned utilization. Members of the same team further along the line are depending on proper handling of this subsistence for their food. At no time can any part of it be diverted for personal use without causing hardship to another member for whom these supplies were planned.

CHAPTER 3

ORGANIZATION AND EQUIPMENT

Section I. ORGANIZATION

15. SECTION

The section is the smallest element of the company.

16. PLATOON

The depot headquarters platoon consists of a platoon headquarters and two operating sections. Each of the three operating platoons consists of a platoon headquarters and three operating sections.

17. COMPANY

The company (fig. 2) consists of the office of the depot commander, the company headquarters, the depot headquarters platoon, and the three operating platoons.

Section II. EQUIPMENT

18. SPECIALIZED ORGANIZATIONAL EQUIPMENT

Most of the specialized organizational equipment provided the company consists of materials-handling equipment (list of references in app. I).

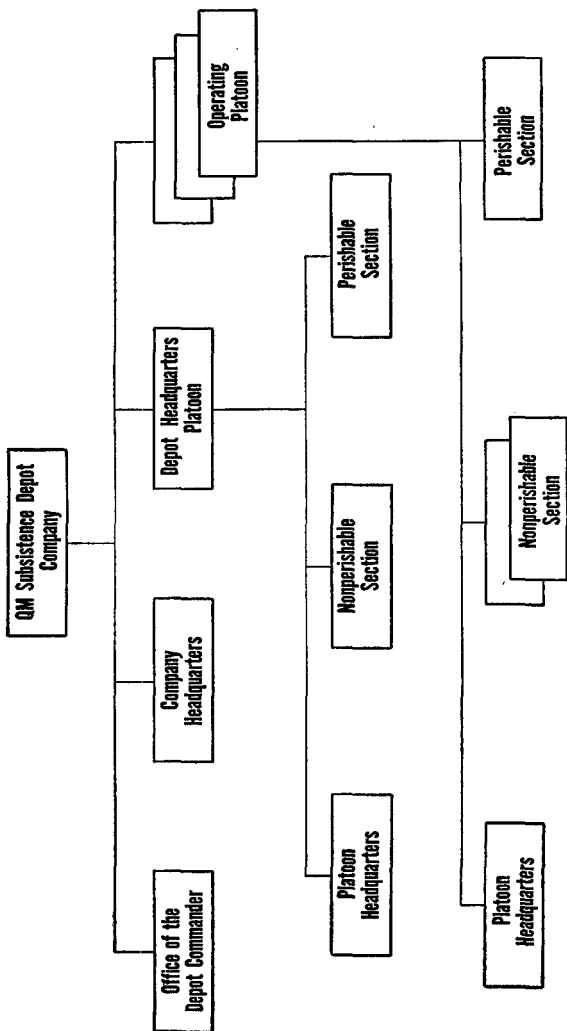


Figure 2. Organizational chart of the company.

a. Fork Lift Truck.

- (1) *Description.* The fork lift trucks provided the company are gasoline-powered, pneumatic-tired, four-wheeled automotive units. One unit can pick up a unit load, carry the load to its destination, and stack it as high as the capacity of the particular model (5 to 12 feet) permits. The load is carried in front of the truck on a two-tined fork, which is moved up or down on a supporting frame by either a mechanical or a hydraulic lift mechanism. The supporting frame and the fork can be tilted forward from the vertical to pick up the load and backward from the vertical to aid in balancing the lifted load.
- (2) *Capacity.* The fork lift truck authorized for the company has a capacity of 3,500 pounds and a lifting height of 144 inches.
- (3) *Use.* The fork lift truck can be used efficiently to move palletized unit loads of 2,000 pounds or more. Moreover, the truck can be used to move items which, because of the size or shape, cannot be palletized. For best results the fork lift truck should be used in conjunction with a tractor-trailer train (b(3) below) whenever the horizontal distance the load is to be carried is 250 feet or more.

b. Warehouse Tractor.

- (1) *Description.* The warehouse tractor is a small gasoline-powered, pneumatic-tired, four-wheeled vehicle equipped with a draw-bar to engage the trailer. The steering

mechanism allows short turns but tends to reduce stability.

(2) *Capacity.* The warehouse tractor has a capacity of 4,000 pounds.

(3) *Use.* The warehouse tractor is used for direct drag-towing of materials along the floor on skids or for pulling one or more trailers. Where the volume of materials and the regularity of schedules warrant its use, a trailer team of more than one trailer is the most practical and economical method of moving materials with a warehouse tractor. Under such circumstances, the tractor acts as a locomotive for a trackless train of trailers. Wheels of the trailers in the train closely follow in the track of the tractor so that S-turns can be made easily. As the train moves through the storage area, trailers are spotted at intervals where they are to be used and other trailers picked up. When the distance the load is to be carried exceeds 250 feet, a tractor and trailer should be used in conjunction with a fork lift truck. The subsistence depot company should plan to use one tractor to move three trains of five trailers each. In the three-train system, while the tractor is hauling train 1, train 2 is being loaded, and train 3 unloaded.

c. *Warehouse trailer.*

(1) *Description.* The warehouse trailer is a four-wheeled truck designed to achieve large carrying capacity. A simple swift coupling attaches the trailer to the towing unit. The platform, made of wood and steel, is usually

3 feet wide and 6 feet long and is carried about 14 inches above the floor. Stake pockets are located on all four sides of the platform so that racks can be shifted easily to support the cargo. When the trailer is being loaded by hand, each side of the platform will be lined with a beveled strip of wood that keeps packages in the center of the trailer. However, when the loading is mechanical, the beveled strips will be removed so that the pallets will rest firmly on the platform. Coupling is accomplished by either an automatic coupler, a self-locking pintle, or a pintle-and-loop coupler, depending on the particular model.

- (2) *Capacity.* The warehouse trailer has a maximum capacity of 4,000 pounds.
- (3) *Use.* The warehouse trailer is used most efficiently with tractor-trailer trains. It may also be used as a hand-propelled vehicle. It operates best on a concrete surface or solid flooring and is not designed to operate on soft or uneven surfaces. Its efficiency depends to a large extent upon its balanced use with other equipment.

d. Hand Truck.

- (1) *Description.* The hand truck is a frame supported at one end by two solid rubber-tired wheels and at the other end by two handles held by the operator. A steel nose iron is attached to the lower end of the frame to aid in picking up and supporting the load. A clamp is usually mounted at the

top of the frame to secure the load while the truck is in motion. For use in narrow aisles the wheels may be arranged in the "western" pattern so that they are inside the width of the frame. In the "eastern" pattern, the framework is tapered at the lower end and the wheels are placed on the outside. The truck can be equipped with safety brakes that operate against the outside surfaces of the wheels.

- (2) *Capacity.* The hand truck has a maximum capacity of approximately 600 pounds.
- (3) *Use.* The chief use of the hand truck is to transport small quantities of materials over distances not exceeding 150 feet in one direction. It is of special advantage in handling odd-shaped packages and in moving materials in narrow aisles and other confined storage areas. It is used to best advantage in conjunction with powered equipment to move packages which, because of their shape or small number, do not warrant the use of the mechanical equipment.

e. Gravity Roller Conveyor.

- (1) *Description.* The gravity roller conveyor is a continuous platform of regular-spaced rollers that turn freely in the frame of the platform. It is used when large quantities of uniform-sized packages or cased goods are to be moved over a maximum distance of 80 feet. A fall of 3 inches in each 10-foot section is usually enough to overcome the friction in the roller bearings. Rollers may be placed above the frame so that pack-

ages wider than the width of the conveyor can be carried. Usually the load is carried on at least three rollers. The roller conveyor can be adapted to many situations. Straight sections (10 feet long by 12 or 18 inches wide) can be hinged to clear the way for cross traffic. Curved sections can be added to route materials around corners. Spur and converging sections may be used where one conveyor is to branch into several others or where a number of conveyors converge. Supports with 9-inch and 15-inch arms are provided.

- (2) *Capacity.* Capacity will depend upon the type of conveyor system installed. The physical layout of the installation, the character and volume of the materials to be handled, and the number of points in the installation that the conveyor is to serve will influence capacity.
- (3) *Use.* The gravity roller conveyor is generally used in a warehouse or depot wherever a heavy flow of packages is to be moved over a definite line of travel. Single sections may be used anywhere to load and unload trucks and freight cars.

f. Prefabricated Refrigerators. Prefabricated refrigerators will be furnished only when other refrigeration facilities are not available. The commander of the subsistence depot company is expected to make full use of available refrigeration in areas used for operations. Prefabricated refrigerators of varying capacity are electrically operated and are supplied in sections for rapid erection (fig. 3).

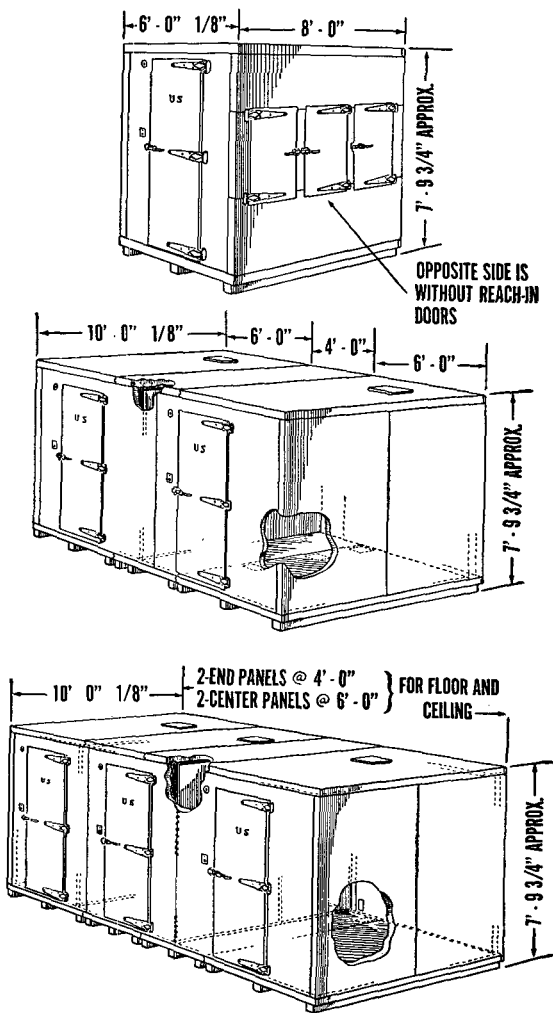


Figure 3. Prefabricated refrigerators.

19. PROVISION OF SPECIALIZED EQUIPMENT

The specialized organizational equipment (par. 18) which is authorized the subsistence depot company is distributed as follows:

a. Section.

- (1) *Fork lift truck.* The nonperishable section of the depot headquarters platoon is authorized 2 fork lift trucks; the perishable section of the same platoon is authorized 1 fork lift truck. Each of the two nonperishable sections of the three operating platoons is authorized 2 fork lift trucks and the perishable section is authorized 1 fork lift truck. The total number of fork lift trucks authorized is 18.
- (2) *Warehouse tractor.* The nonperishable and perishable sections of the depot headquarters platoon are each authorized 1 tractor. Each of the two nonperishable sections and the perishable section of each of the three operating platoons are authorized 1 tractor. The total number of warehouse tractors authorized is 11.
- (3) *Warehouse trailer.* The nonperishable and perishable sections of the depot headquarters platoon are each authorized 5 trailers. Each of the two nonperishable sections and the perishable section of each of the three operating platoons are authorized 5 trailers. The total number of trailers authorized is 55.
- (4) *Hand truck.* The nonperishable and perishable sections of the depot headquarters

platoon are each authorized 2 hand trucks. Each of the two nonperishable sections and the perishable section of each of the three operating platoons are authorized 2 hand trucks. The total number of hand trucks authorized is 22.

(5) *Gravity roller conveyor.*

- (a) The nonperishable section of the depot headquarters platoon is authorized eight 12-inch wide and eight 18-inch wide 10-foot conveyor sections. The section is also authorized two 45° curved sections, one 12 inches wide and one 18 inches wide.
- (b) The perishable section of the depot headquarters platoon is authorized four 12-inch wide and four 18-inch wide 10-foot conveyor sections. The section is also authorized two 45° curved sections, one 12 inches wide and one 18 inches wide.
- (c) Each of the two nonperishable sections of the three operating platoons is authorized eight 12-inch wide and eight 18-inch wide 10-foot conveyor sections. Each section is also authorized two 45° curved sections, one 12 inches wide and one 18 inches wide.
- (d) The perishable sections of each of the three operating platoons are authorized twelve 12-inch wide and four 18-inch wide 10-foot conveyor sections. Each section is also authorized two 45° curved sections, one 12 inches wide and one 18 inches wide.

- (e) The total number of 12-inch wide roller gravity conveyors authorized is 72; the total number of 18-inch wide roller gravity conveyors is 72. The total number of 12-inch wide 45° curved sections is 11; the total number of 18-inch 45° curved sections is 11.
- (6) *Prefabricated refrigerators.* The perishable section of the depot headquarters platoon is authorized one prefabricated refrigerator when made available by higher authority. The perishable section of each of the three operating platoons is also authorized one prefabricated refrigerator when made available by higher authority.
- b. *Platoon.*
- (1) *Fork lift truck.* The depot headquarters platoon is authorized three fork lift trucks. Each of the three operating platoons is authorized five fork lift trucks.
- (2) *Warehouse tractor.* The depot headquarters platoon is authorized two warehouse tractors. Each of the three operating platoons is authorized three warehouse tractors.
- ((3) *Warehouse trailer.* The depot headquarters platoon is authorized 10 warehouse trailers. Each of the three operating platoons is authorized 15 warehouse trailers.
- (4) *Hand trucks.* The depot headquarters platoon is authorized four hand trucks. Each of the three operating platoons is authorized six hand trucks.

- (5) *Gravity roller conveyors.* The depot headquarters platoon is authorized 12 each of the 10-foot sections of the 12- and 18-inch conveyors; also, 2 each of the 45° curved sections of the 12- and 18-inch conveyors. Each of the three operating platoons is authorized 20 conveyor sections 12 inches wide and 20 sections 18 inches wide. Also, each of the three operating platoons is authorized three 45° curved section 12 inches wide and three 18 inches wide.
- (6) *Electric lighting equipment, set No. 4, 5-K-W.* Each of the platoons is supplied an electric lighting equipment, set No. 4, 5-K-W, when authorized. This equipment is used to light the depot or storage area when night operations are required.
- (7) *Floodlight equipment, set No. 2, construction, portable.* This equipment, when authorized, is supplied to each platoon for the purpose of floodlighting the unloading or loading operations when night shifts are operated.

20. TRANSPORTATION EQUIPMENT

Three trucks and a water tank trailer are assigned to the company headquarters. This equipment is for the internal use of the company in its administrative and operating functions. Additional transportation may be requisitioned as necessary through higher headquarters. The equipment assigned to the company follows:

- 1 Water tank trailer, 250-gallon, 1-ton, 2-wheel.
- 1 Utility truck, $\frac{1}{4}$ -ton, 4 x 4, M38.
- 1 Cargo truck, $\frac{3}{4}$ -ton, 4 x 4, M37.
- 1 Cargo truck, $2\frac{1}{2}$ -ton, 6 x 6, with winch.

Section III. MAINTENANCE OF EQUIPMENT

21. MAINTENANCE RESPONSIBILITY

The commander of the subsistence depot company is responsible for maintenance. Each member of the subsistence depot company has a definite maintenance task as the commander directs. All officers and non-commissioned officers must see that instructions and procedures for maintenance operations are strictly complied with by all personnel under their immediate supervision (AR 750-5 and other references listed in par. 5, app. I).

22. ORGANIZATIONAL MAINTENANCE

a. Purpose. The purpose of organizational maintenance is to detect and correct minor defects before they develop into major defects. The following procedures are necessary for organizational maintenance:

- (1) First echelon organizational maintenance, consisting of daily and weekly maintenance services performed by all operators through observance of rules contained in technical manuals, lubrication orders, and other publications listed in appendix I.
- (2) Second echelon organizational maintenance, consisting of weekly, monthly, quarterly,

and semiannual maintenance services performed by organizational mechanics.

b. Responsibility. The commander is responsible that instructions and procedures for organizational maintenance operations are strictly complied with by all personnel under his control. He is also responsible that each individual user, wearer, or operator of equipment within his command is trained in the organizational maintenance of such equipment.

23. MAINTENANCE OF MATERIALS-HANDLING EQUIPMENT

Materials-handling equipment will be maintained in accordance with AR 700-240.

24. MOTOR VEHICLE MAINTENANCE

The motor vehicles assigned to the subsistence depot company (par. 20) will be maintained by the drivers and company wheel-vehicle mechanics. Drivers perform first echelon organizational maintenance on organic motor vehicles. Second echelon organizational maintenance is performed by the wheel-vehicle mechanics assigned to company headquarters. Procedures prescribed in TM 37-2810 and appropriate vehicle technical manuals (app. I) will be followed.

25. MISCELLANEOUS EQUIPMENT

Miscellaneous equipment organic to the company will be maintained by the user and the company mechanics as prescribed in AR 750-5. Policies pre-

scribed by higher authority will be followed. When used by the company, the prefabricated refrigerators will be maintained by the refrigeration specialists and personnel using the equipment.

26. MAINTENANCE RECORDS

The prescribed maintenance records for motor vehicles (AR 700-105) and materials-handling equipment (AR 700-240) will be kept by the motor sergeant.

27. SUPPLY OF SPARE PARTS AND TOOLS

a. Allowances. Authorized initial allowances of spare parts and tools for the company will be supplied when initial issues of equipment are made. Company supply personnel will maintain the authorized stock level by requisition from or exchange with the designated supply organization.

b. Requisitions. A spare parts requisition should contain the make, model, and serial or series number of the equipment. The requisition also should contain the official stock number and nomenclature of all items required, according to the latest Department of the Army supply catalog. On each requisition, a reference should be made to the source of information. When technical manuals are used to obtain spare parts numbers and nomenclature, the title and date of the manuals should be stated to help the supply agency determine the exact item desired. Appropriate DA supply catalogs are listed in appendix I.

CHAPTER 4

DUTIES OF PERSONNEL

28. SECTION

Personnel of all the sections should be familiar with nomenclature of supplies, proper handling and storing, and the principles of refrigeration. The perishable section operates all refrigeration machinery and is responsible for the maintenance of proper temperatures within the refrigerated areas.

a. Section Chief. A section chief assigned to each of the nonperishable and perishable sections of the subsistence depot company supervises personnel within each section (fig. 4). The section chief is the senior noncommissioned officer of each section. He is in immediate charge of the receipt, storage, and issue of all supplies in his section and personally supervises all methods of storing. He must be able to plan the distribution of supplies and the use of personnel in such a way that the greatest efficiency is obtained in receiving and issuing supplies. Specific duties of the section chief are as follows:

- (1) Storing supplies in accordance with the methods prescribed by the depot commander.
- (2) Keeping unloading and loading times to a minimum.

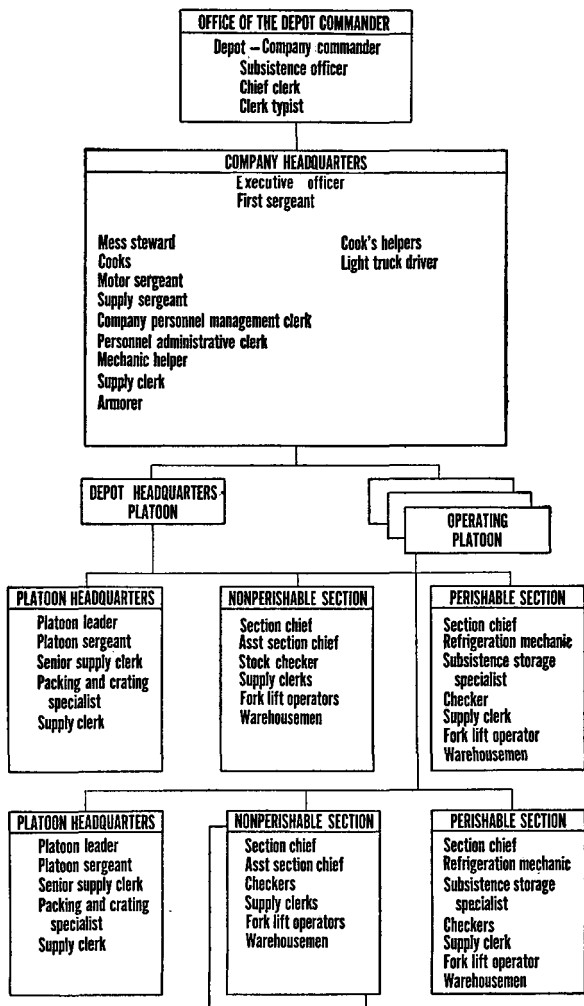


Figure 4. Organization of personnel in the company.

- (3) Supervising the receiving and issuing of subsistence items.
- (4) Inspecting subsistence supplies for deterioration while the supplies are being received and issued.
- (5) Supervising the activities of the personnel assigned to the section.

b. Assistant Section Chief. The assistant section chief works with the section chief and is trained to perform all duties performed by the section chief. He assumes the duties of the section chief when directed to do so by the platoon leader or if an emergency requires that he assume these duties. The assistant section chief is also able to perform the duties of the other personnel assigned to the section.

c. Checkers. Various clerical and stock-handling duties are performed by checkers. Incoming and outgoing supplies are checked against items listed on requisitions, shipping documents, or other forms. The checker counts, grades, or weighs subsistence items and stores small items in storage bins and compartments. He arranges items in such a manner as to aid taking of inventories and provide protection against dampness and deterioration. During receiving and issuing operations the checker makes a rapid examination of items for signs of deterioration.

d. Supply Clerks. Supply clerks are assigned clerical and stock-handling duties and must maintain stock records of items on hand. They should be familiar with procedures for anticipating and preventing stock depletions. Supply clerks should be

familiar with Army Regulations governing subsistence supply and with principles of military book-keeping.

e. Fork Lift Operators. The fork lift operators in each of the sections are trained to operate and maintain the fork lift trucks. They move materials by fork lift trucks or other devices.

f. Warehousemen. The warehousemen supervise the labor furnished by service companies (T/O&E 10-67), personnel of labor detachments (T/O&E 10-500), or labor provided by prisoners of war or from civilian sources. They may also be assigned to operate the mechanical equipment tractors, etc., assigned to the organization.

g. Refrigeration Mechanics. Refrigeration mechanics are assigned to each perishable section. They must be able to install, maintain, repair, and operate the refrigerating equipment used by the company and should be able to supervise the erection of prefabricated refrigerators.

29. PLATOON HEADQUARTERS

Platoon headquarters performs the necessary administrative and housekeeping duties and directs the activities of the platoon when it is operating as a separate unit. It coordinates and directs the operations of the subordinate sections. Platoon headquarters may be responsible for the operation of subsistence depots located horizontally to the front to provide service on a corps basis. It may also be responsible for operating the platoons separately in depth at intermediate or advanced depots to move subsistence supplies from rear areas to the front.

a. Platoon Leader. The platoon leader (fig. 4), who has the grade of first or second lieutenant, is in command of the platoon. He is in charge of platoon operation both when the platoon is operating as a separate platoon and when it is operating in conjunction with the company. Since the platoon may be detached at any time for the operation of a depot, the platoon leader must make certain that the platoon is ready for such an assignment. He assumes responsibility for the administration, supply, discipline, and security of the platoon when it is detached from the company. He must be familiar with all the duties of a subsistence officer. When required, he inspects and condemns food products other than those of animal or marine origin.

b. Platoon Sergeant. A platoon sergeant is assigned to each platoon. The platoon sergeant assists the platoon leader in the performance of duties and assumes the duties of the platoon leader if the occasion arises. He should be thoroughly familiar with duties performed by personnel in the platoons and sections. He should be able to perform the duties of the chief clerk of the depot commander's office and the duties of the company first sergeant when the platoon is operating separately.

c. Supply Clerks. Supply clerks are assigned to the platoons to edit requisitions, assist in establishing stock levels, perform inventory adjustment operations, keep fund allocation accounts, post current stock record files, and to prepare messages, forms, reports, and other related records. They also assist in performance of routine office duties.

d. Packing and Crating Specialists. Packing and crating specialists are assigned to each platoon headquarters. They clean and waterproof material and pack and crate items for shipment. They build pallets for storage purposes and containers for subsistence and do general carpentry work. They must be able to construct and repair buildings to be used for depot operations. They construct boxes, crates, and barrels for packaging.

30. COMPANY HEADQUARTERS

Company headquarters is responsible for the administrative functions of the company and provides the supply and mess facilities for company personnel.

a. Executive officer. The executive officer (fig. 4) assists the company commander in the administration, instruction, training, food service, and security of the company. He should provide security for items stored in strong rooms of the depot and issue orders for fire prevention and control. Under direction of the depot commander the executive officer is in immediate charge of the training program for all company personnel as well as attached personnel, both military and civilian.

b. First Sergeant. The first sergeant is the non-commissioned administrative assistant to the executive officer. Since he is in charge of enlisted personnel, he transmits all orders of the company commander to the enlisted personnel and acts as the liaison between the enlisted personnel and the company commander. In addition to his knowledge of company administration, the first sergeant should

have a thorough understanding of his organization and its operation. He should be thoroughly familiar with the Army supply system and with the function of the company within the system.

c. Company Personnel Management Clerk. The company personnel management clerk is the administrative assistant to the first sergeant. He counsels and assists enlisted personnel, administers and scores prescribed tests, and prepares and maintains qualifications and other personnel records. He performs various clerical and typing duties for the company, prepares morning reports, keeps the sick book current, and files orders, memoranda, circulars, bulletins, and manuals. He also maintains a suspense file on company activities. He is receptionist for company headquarters and represents the first sergeant and the executive officer in their absence.

d. Personnel Administrative Clerk. The personnel administrative clerk is responsible for the administration, personnel classification, and other miscellaneous clerical and typing duties of the company headquarters. He prepares the records, correspondence, leaves, and furloughs and may be detailed to work at battalion headquarters or base depot headquarters.

e. Supply Sergeant. The supply sergeant is assistant to the executive officer in all matters pertaining to supply within the unit. He is in immediate charge of the receipt, storage, and issue of individual and organizational clothing and equipment and expendable supplies. He prepares requisitions for supplies, checks supplies received and issued, and reports

to the executive officer any discrepancies noted in quantity or quality.

f. Supply Clerk. The supply clerk prepares requisitions and checks supplies received or issued under the supervision of the supply sergeant. He checks the property submitted for salvage and prepares reports of survey, as required.

g. Motor Sergeant. The motor sergeant, under the direction of the executive officer, supervises the operation and maintenance of all vehicles and warehousing equipment organic to the company. He supervises the work of the vehicle operators and wheel-vehicle mechanics and makes sure that they comply with the rules for organizational maintenance. He supervises the preparation of prescribed records and reports and maintains necessary liaison with the next higher echelon of maintenance.

h. Wheel-Vehicle Mechanics. The wheel-vehicle mechanics, under the motor sergeant's supervision, perform the necessary maintenance on company vehicles and warehousing equipment and assist in training newly assigned mechanics.

i. Mess Steward. The mess steward supervises the food service personnel and plans the use of available facilities to provide for any type of operation undertaken by the company. He must make necessary plans to insure satisfactory messing arrangements for the company when it is operating on more than one daily shift and for a platoon when it is operating at a distance or temporarily detached from the company. He must know how to make a breakdown of the company's rations for a detached platoon

and be able to assist the executive officer in selecting kitchen personnel and equipment for the platoon.

j. Cooks. The cooks, under the supervision of the mess steward, prepare food for company personnel and conform to military methods for food preparation.

k. Cook's Helper. The cook's helper assists the cooks in the preparation and serving of food. He cleans utensils, tools and equipment, and the working area in conformity with principles of sanitation.

l. Additional Personnel. Additional personnel of company headquarters are listed in T/O&E 10-357. Technical qualifications of the personnel are explained in SR 615-25-15.

31. OFFICE OF THE DEPOT COMMANDER

The office of the depot commander is responsible for the administration of the depot and all assigned and attached personnel.

a. Depot Commander.

(1) The depot commander (captain) is the company commander. He is responsible for the establishment of procedures that will insure successful and efficient operation of the depot. He is assistant to the commander if assigned or attached to a branch or general depot. The depot commander (fig. 4) of the subsistence company is responsible for the following:

- (a) Receipt, storage, inspection, and issue of all supplies handled by the depot.
- (b) Protection of all supplies from theft, fire, and enemy action.

- (c) Maintenance of all administrative records necessary for depot operation.
 - (d) Supervision of assigned troops and labor.
 - (e) Traffic control within the depot.
 - (f) Supervision of the administration, training, and supply of company personnel.
 - (g) Procurement of additional facilities, equipment, manpower, and supplies for operations when necessary, authorized, and available.
- (2) When operating under the army quartermaster, the depot commander normally is responsible for the following:
- (a) Maintenance of accurate figures on class I levels in the depot.
 - (b) Maintenance of operational data on class I supply items for the purpose of recommending establishment of changes in stock levels.
 - (c) Information to higher headquarters when stocks are inadequate in range or quantity or in excess of current needs.
 - (d) Preparing class I statistical data and estimates required by higher authority.

b. Subsistence Officer. When the subsistence depot company is operating independently, the subsistence officer, who is the warrant officer assigned to the depot commander's office, supervises the activities of the office and acts as the depot commander's administrative assistant. He is in charge of requisitions and stock records, supervises inventories and the editing and filling of ration requests, and initiates action necessary to establish and maintain adequate

stock levels. The subsistence officer should know the amount on hand and on order of every type of subsistence supply he may be required to issue. He should promptly requisition replacement stock when a minimum level is reached. He must have knowledge of the condition of his stocks so that correct action may be taken to avoid subsistence losses. He should make a close check of items received by the automatic supply system since such items may be incorrectly distributed and needed by another depot. He should personally check each day's menu against stock records and select the necessary substitutions that may be required.

c. Chief Clerk. The chief clerk, who is a master sergeant, should be familiar with all phases of subsistence operation. He is the chief clerk in charge of all clerical work in the office. Under the direction of the subsistence officer, the chief clerk is responsible for the maintenance of all necessary records and stock record cards. He maintains the central office file and library of publications. He maintains a suspense file on reports and correspondence requiring action.

d. Clerk-Typist. The clerk-typist, under the supervision of the chief clerk, performs general clerical work. He prepares outgoing requisitions for necessary supplies and takes care of incoming ration requests and other documents.

CHAPTER 5

PREPARATION FOR OPERATIONS

Section 1. RECONNAISSANCE AND SITE SELECTION

32. RECONNAISSANCE

The general location for an operational site for a subsistence depot is usually designated by the command to which the quartermaster subsistence depot company is assigned or attached. After the general area in which the depot is to be located has been designated by higher headquarters, the depot commander makes a reconnaissance to select the site unless this responsibility is assumed by higher headquarters. When a platoon is operating separately, the platoon leader is responsible for performing the reconnaissance for the site for the subdepot, subject to the approval of the depot commander and the higher headquarters.

33. SITE SELECTION

Following are some of the major factors in the selection and layout of a subsistence depot area:

a. Space Requirements. In estimating space requirements, the depot commander should consider space for receiving, classifying, storing, and issuing supplies; nearby space for bivouac and administration, and space for turnaround of vehicles. Enough

room for expansion of the depot should be kept in mind. For this reason, a site adequate for immediate needs may be undesirable.

b. Transportation Facilities. The depot must be convenient to the type of transportation to be used, whether this is rail, truck, water, air, or any combination of these. Available rail or water sidings and a level area which can be cleared for an airstrip are desirable. Adequate roads to handle traffic must be considered. The depot should be accessible to consuming units and to an adequate road net.

c. Dispersion. The need for dispersion of supplies requires that the depot be located in as large an area as possible. Dispersion must extend to the storage of even single items. For example, the supply of flour at a depot should normally be dispersed so that the entire supply will not be destroyed by a single enemy attack.

d. Camouflage. Natural camouflage should be considered to minimize danger from enemy observation and attack. Overhead covering created by trees and bushes on the site is desirable. However, any natural concealment, such as trees, bushes, and rocks, should be closely examined to find out whether they will interfere with efficient operations.

e. Covered Storage Space. Covered storage space to protect supplies from the weather and from pilferage is highly desirable and every effort should be made to locate the depot where such space is available.

f. Natural Shelter. Natural shelter, such as storage in caves, is desirable to protect supplies subject to damage by cold. During hot weather, such locations should permit as much air circulation between

containers in stacks as possible in order to prevent corrosion and spoilage of supplies.

g. Local Labor. The site should be near a supply of local labor if possible. An estimate as to the availability of local labor should be made by contact with local authorities. Civilian labor is used wherever possible in the theater of operations to conserve Army manpower.

h. Sanitation. A subsistence depot should not be located near refuse dumps or stagnant water. When the depot is in operation, latrines, carefully screened and covered, must be located at a considerable distance from supplies.

i. Bivouac Site. The bivouac site should be located on solid, level, well-drained ground and accessible to good road nets and the depot.

Section II. PLANNING FOR OPERATIONS

34. LAYOUT OF DEPOT

The following points should be kept in mind in laying out and operating a subsistence depot:

a. Maximum Speed. The layout should be arranged for maximum speed in delivery.

b. Roadways and Aisles. In open storage a system of roadways and storage aisles must be established that will use existing roadways as far as possible and at the same time produce the most efficient use of manpower in loading and unloading supplies. Aisles must be numerous enough for all supplies to be convenient to loading points. Aisles should be wide enough to accommodate personnel

necessary for speedy operation and should be laid out to make the most effective use of roller conveyors or other materials-handling equipment. Vehicles must be brought as close as possible to the stacks and at approximately the same level.

c. Reinforced Roadways. Roadways must be as firm as possible and should be reinforced where necessary with logs, coral, or other available material. They should be wide enough to allow travel while standing trucks are being unloaded.

d. Loading Points. Whenever practicable, truck loading points should be provided to bring truck beds to the level of supplies and make lifting unnecessary. Loading points of crushed rock or coal make an excellent foundation for an outdoor storage area.

e. Traffic Flow. Adequate provision must be made for one-way traffic flow (fig. 5).

f. Bivouac Area. The bivouac area (fig. 5) should be as accessible to the depot site as possible.

35. ESTIMATING SIZE OF A DEPOT STORAGE AREA

The depot commander may be required to estimate the size of depot necessary to supply subsistence items to an army or corps. The following estimate for a depot of 400,000 capacity, based on FM 101-10, is furnished as a guide:

a. The class I rations in short tons required per man per month are estimated at 0.108. For 400,000 troops the estimate would be 43,200 short tons per month.

b. The storage space in measurement tons is determined by converting short tons into measurement

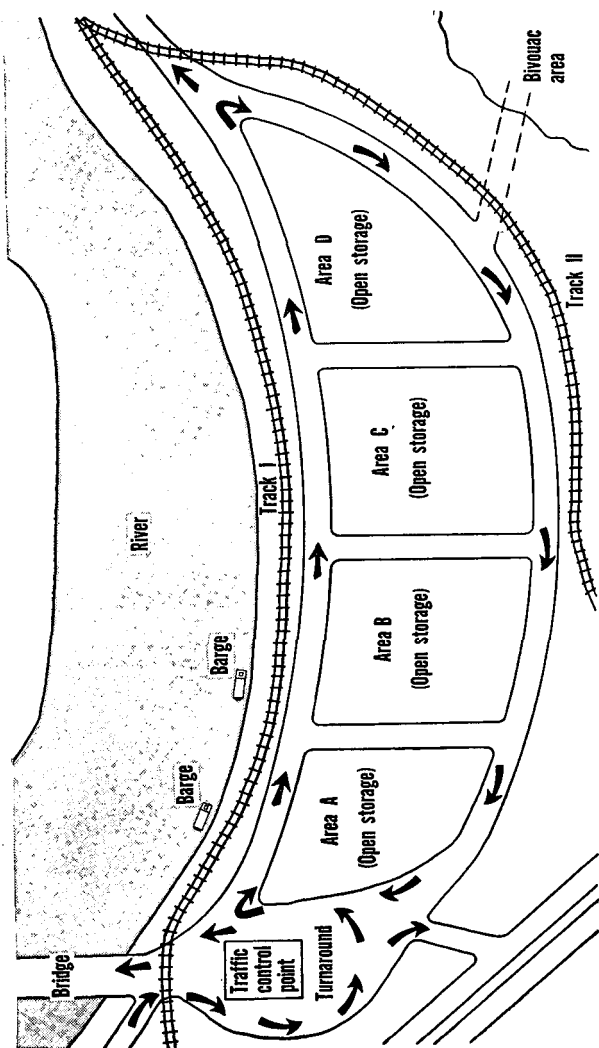


Figure 5. Part of the class I section of a base depot.

tons. By use of the conversion factor of 2.1, the 43,200 short tons would be 90,720 measurement tons.

c. To find the cubic feet of storage space, multiply the measurement tons by 40, the number of cubic feet in 1 measurement ton. For 90,720 measurement tons, the storage space requirement would be 3,628,800 cubic feet.

d. The net closed storage area requirement in square feet is found by dividing the storage space requirement in cubic feet by 8 feet, the average stack height. The net closed storage area requirement in 3,628,800 cubic feet would be 453,600 square feet.

e. The gross closed storage area requirement for storage in the communications zone is found by multiplying the net closed storage space by 1.4. The gross closed storage area requirement in 453,600 square feet would be 635,040 square feet.

f. The gross closed storage area requirement for storage in the combat zone is found by multiplying the gross storage area requirement, communications zone, by 3. The gross closed storage area requirement for 635,040 square feet would be 1,905,120 square feet. (An additional factor of 3 is required for storage in the combat zone.)

g. The net open storage area requirement in square feet is found by dividing the storage space requirement in cubic feet by 6 feet, the average stack height. The net open storage area requirement in 3,628,800 cubic feet would be 604,800 square feet.

h. The gross open storage area requirement for storage in the communications zone is found by multiplying the net open storage area requirement by

1.5. The gross storage area requirement in 604,800 cubic feet would be 907,200 square feet.

i. The gross open storage area requirement for storage in the combat zone is found by multiplying the net open storage area requirement by 4.5. The gross open storage area requirement in 604,800 by 4.5 would be 2,721,600 square feet.

j. The requirement for refrigeration space is found by multiplying the number of men by 3.32 cubic feet, the minimum refrigeration space per man. The requirement for refrigeration space for 400,000 men would be 1,328,000 cubic feet.

k. For a refrigeration plant, the minimum floor space per 100,000 men is 116,200 square feet. Therefore, 116,200 square feet times 4 would give 465,800 square feet, the requirement for 400,000 men. For a refrigeration plant the minimum site area per 100,000 men is 209,160 square feet. Therefore, 209,160 square feet times 4 would give 836,640 square feet, the requirement for 400,000 men.

36. TECHNICAL OPERATIONS

a. *General.* The subsistence depot company expedites the flow of class I items along the supply line which extends in the theater of operations from debarkation ports to the extreme forward areas. Subsistence items arriving at the theater or procured therein are stored for the most part temporarily in base depots and are the responsibility of the subsistence depot company. The company forwards the subsistence by operating either as a unit or by sections.

b. Classification of Supplies. The standard classification system of military supplies and the methods of handling each class are explained in FM 10-10. Primarily, the subsistence depot company is concerned with operations of the class I section of the army or base depot to which it is assigned or attached. Class I supplies are items which are consumed at an approximately uniform daily rate irrespective of combat operations or terrain, and which do not have to be adapted to meet individual requirements, such as rations. A ration is the allowance of food for one person for one day. Ration components and substitutes are determined by the Department of the Army. They are procured and issued by the Quartermaster Corps.

c. Movement of Supplies. Supplies of all classes are usually moved forward to meet operational requirements, with all available means of transportation being used.

Section III. SETTING UP AND TAKING DOWN PREFABRICATED REFRIGERATORS

37. SETTING-UP OPERATIONS

a. Location. The prefabricated refrigerator must be located in the place most suitable for it, where it is handiest to use, and if possible near work tables. Doors should open to an uncrowded area. Although available space is often limited, a cool location should be chosen whenever possible. Proper ventilation should be arranged to carry away heat from the condensing equipment. The unit should not be installed near radiant heat, such as a furnace or warm brick

wall. An ambient temperature (temperature surrounding equipment) of 10° F. above normal for both cabinet and condensing unit may increase the heat load and decrease the equipment capacity so that the operating time increases 25 to 35 percent above normal.

b. Accessibility. Wherever possible, enough room for servicing the refrigerating equipment should be provided. Those parts of the refrigerating equipment subject to preventive maintenance should be accessible.

c. Power. The electric power supply should have the correct voltage, frequency, phase, and capacity.

d. Drain. A suitable drain should be planned before installation of equipment.

e. Floor or Platform. The floor or platform must be strong enough to support the equipment and have enough rigidity and mass to minimize vibration. In estimating floor weights of walk-in refrigerators, a factor of 250 pounds per square foot of floor area may be used. Floors should be level.

f. Labor Requirements. A minimum of six men will be required to set up a prefabricated refrigerator. Floor and side panels can be put up by two men. Top panels will require four men because of the lifting required.

g. Time. Under average conditions a one-compartment 35° F., sectional prefabricated refrigerator can be erected in 2 hours. Units with more than one compartment will take proportionally longer. The above estimate does not allow for concrete work in connection with the erection of the frozen-food refrigerator.

h. Erection of 35° F. Sectional Prefabricated Refrigerators.

- (1) Place floor sections in position. If necessary shim or wedge to make top of skids level. If floor consists of two or more sections, seal joint between them with calking compound unless gaskets are provided. Use calking gun supplied with equipment for application.
- (2) When the floor section is properly laid, erect the side-wall sections and loosely bolt them together. Install inside panels if a two- or three-compartment unit is being erected. Tighten side-wall bolts. Lay top panel in place and then tighten top panel to side panels. Since top panels must be lifted 8 to 10 feet in order to place them in position, workmen must stand on raised platform, possibly a truck. While the top and wall sections are being put in place, inspect the joints for proper alignment and fit. If the erection and assembly is carefully and properly done, side walls will be plumb and the ceiling level. Tighten the bolts enough to compress gaskets in the joints between panels to assure airtight joints. Use calking compound if gaskets are not provided.
- (3) If refrigerator has a ceiling vent to allow release of air from interior when door is slammed shut, inspect its gasket for tightness and its hinge for freedom of movement.

Check door gaskets, lock, and hinges.
Adjust handles and fit of doors.

- (4) Place thermometer, floor racks, meat racks, meathooks, and shelving in position.
- (5) See that interior lights are securely inserted and properly wired to interior switch and pilot light.
- (6) Since manufacturer's instructions are furnished with refrigerating equipment, the refrigeration mechanics will be guided by these instructions in making installation of the equipment.
- (7) Check the final assembly of the unit. Make test run of refrigerator before putting it in operation.

i. Erection of Sectional Prefabricated Frozen-Food Refrigerator.

- (1) A tight seal for the frozen-food refrigerator is provided by a concrete bottom constructed on the floor of the structure to be used.
 - (a) A 2-inch concrete base with adequate sub-base will be placed on the floor of the structure.
 - (b) A 4- by 4-inch concrete curb may be placed around the entire concrete area to prevent excess water from floors being washed or from other sources seeping between the refrigerator and the base. Leave a $\frac{1}{4}$ -inch space between the refrigerator and the curb and pour hot asphalt in this space after the concrete is set and dried.

- (c) Build a form for the outside ramp, extending it from the door sill to the building floor (fig. 6). Place a 2-inch concrete floor slab, extending it from under the door to cover the outside ramp. The sill under the door must be level in order to obtain a good seal at the bottom of the door. Allow the concrete to set and age for at least 1 week with doors open before lowering the temperature of the refrigerator and using it to cool food and other products.
- (2) Follow refrigeration erection procedures outlined in *h* above.

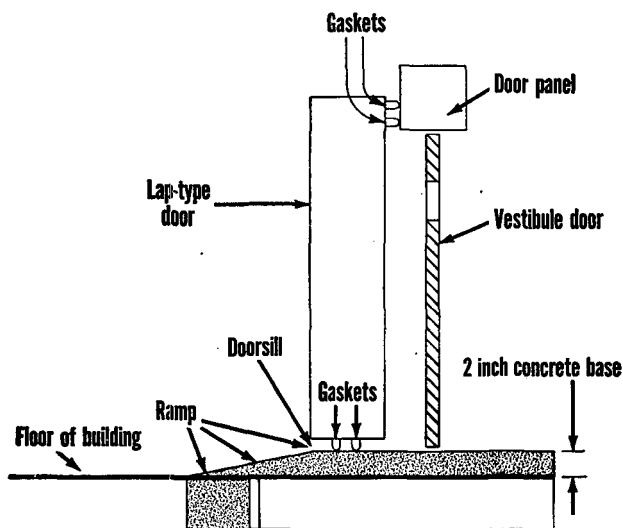


Figure 6. Concrete base for sectional prefabricated refrigerator.

- (3) Since manufacturer's instructions are furnished with refrigerating equipment, the refrigeration mechanics will be guided by these instructions in making installation of the equipment.
- (4) Check the final assembly of the unit. Make test run of the refrigerator before placing it in operation.

38. WARNING POSTER

An improvised poster or placard, approximately 10 by 14 inches, should be placed in the front on an exposed side of the refrigerator. The poster should state that for best refrigeration—

- a.* Doors should be kept closed.
- b.* Mechanical equipment should be kept free from obstruction.
- c.* The refrigerator should be cleaned with soap and water only.
- d.* A company refrigeration specialist should be notified when adjustment, repair, lubrication, or cleaning of the refrigerator is required.
- e.* The refrigeration specialist should be notified when there are unusual noises or vibrations, or when the mechanical equipment fails to operate, defrost, or maintain proper temperatures.

39. TAKING-DOWN OPERATIONS

Taking-down operations for prefabricated refrigerators are the reverse of setting-up operations as given in paragraph 37.

CHAPTER 6

OPERATION OF THE UNIT

Section I. METHODS OF OPERATING

40. ORGANIZATION OF DEPOT OFFICE

When the subsistence depot company has been designated by higher authority to operate a depot, the following type of organization will normally be established:

a. Company-Operated. When the company is assigned to one depot, the platoon headquarters section of each of the three operating platoons and that of the depot headquarters platoon may be pooled with the company headquarters and the office of the depot commander for operation of the depot office. Utilization of personnel, either as individuals or as platoons, is at the discretion of the depot commander.

b. Platoon-Operated. If the depot is operated by one platoon, operation of the depot office is the function of the platoon headquarters of the platoon. The head of the depot office will normally be the platoon leader in charge of the platoon headquarters.

41. PROCEDURE IN DEPOT OFFICE

a. General. Under the general policies prescribed by higher headquarters the depot commander establishes the procedure for administration and operation

of the depot. Using the other commissioned officers of the company as his representatives and delegating suitable authority to them, he establishes channels for the accomplishment of all necessary work. He issues directives for police and fire protection of the depot, for the employment of depot transportation facilities, for the use of civilian labor, and for all other matters pertaining to the care of supplies and to prompt, efficient service by the depot.

b. Ration Requests and Requisitions. The chief subsistence specialist assisted by the typist clerk will generally take the following steps in processing daily ration requests on the depot and in preparing requisitions for stock replenishment:

(1) *Ration request.*

- (a) A voucher number will be placed on each ration request received and the ration request recorded in the requisition control and credit voucher register.
- (b) On the basis of the figures shown on the ration request, the subsistence specialist will determine whether the rations requested are within prescribed allowances and whether they are in stock.
- (c) The shipping document will be prepared from the ration request and a copy will be used as a tally-out by the section involved.
- (d) A copy of the ration request will be filed in the suspense file until the request has been filled, whereupon the copy and the signed original will be filed with the other completed requests.

(2) *Requisitions.*

- (a) Outgoing requisitions (or ration requests in the combat zone) will be prepared from stock replenishment sheets.
- (b) A voucher number will be placed on all requisitions or requests originating in the depot and the number recorded on a requisition register.
- (c) The requisition or request will be forwarded to the appropriate headquarters for filling.
- (d) Incoming shipping documents will be checked against the proper requisitions or requests that have originated in the depot.
- (e) All completed requisitions or requests will be filed.

a. Stock Record Procedures. Stock record procedures by the chief subsistence specialist will consist of the following:

- (1) Maintenance of debit and credit voucher registers, as prescribed by the theater commander.
- (2) Preparation of stock replenishment requests in the form of ration requests or requisitions. Such requests are prepared at predetermined dates; when stock levels approach the established minimum; or at the discretion of the commander.
- (3) Maintenance of back order lists. These are records of items and quantities not available but on order.

- (4) Preparation of stock record cards for each subsistence item stocked by the depot.
- (5) Posting of the stock record cards from all types of valid vouchers. These vouchers consist of shipping documents; inventory sheets; over, short, and damaged reports; survey reports; and any improvised forms used to expedite supply.

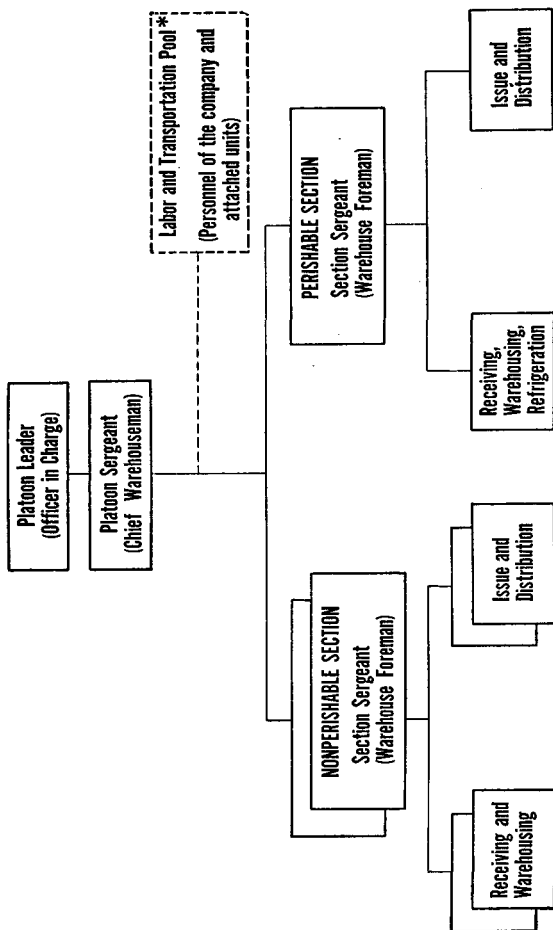
42. OPERATION OF STORAGE FACILITIES

a. Company-Operated. When the entire company is assigned to the operation of a depot, warehousemen and other personnel may be selected from the four platoons and pooled for operation of storage facilities. Use of personnel, either as individuals or as platoons, is at the discretion of the depot commander.

b. Platoon-Operated. If the depot is operated by one platoon, operation of storage facilities is the function of platoon personnel assigned to this duty. The platoon sergeant will serve as chief warehouseman (fig. 7).

c. Sections.

- (1) Operation of storage facilities is divided between the two sections: nonperishable and perishable. The part of the storage facilities assigned to each section is in charge of a designated section sergeant who is the warehouse foreman. He is assisted by a section assistant and necessary personnel.
- (2) The organization of the storage area of all sections should be kept as flexible as pos-



* Only when operating separately.

Figure 7. Organization for platoon operation.

sible so that fluctuating requirements may be met.

- (3) The amount of supplies kept by the perishable section is limited by refrigeration space. When ice plants used for the storage of perishables are put in operation at strategic locations, they are usually large-scale fixed installations in buildings erected for the purpose or found available for such installation. Prefabricated refrigerators will be set up as required but their number is usually limited.

d. Receiving and Warehousing. Receiving and warehousing personnel (including supply clerks, warehousemen, equipment operators, and checkers) receive, unload, and store supplies stocked by their sections. Personnel of the nonperishable sections should be thoroughly familiar with open storage procedures.

e. Issue and Distribution. Issue and distribution personnel (including supply clerks, warehousemen, equipment operators, and checkers) fill all ration requests, do all necessary packing, and supervise the loading of supplies for distribution.

43. WAREHOUSING

Warehousing procedures that have proved useful in the continental United States will be adapted to conditions in the theater of operations. Many times a warehouse will be no more than a shack or a tent and dunnage will probably have to be improvised. Wherever possible, existing storage facilities should

be used. Basic warehousing methods should be followed so far as practicable (app. I).

a. Space Layout. Considerable time and effort must be given to the planning of space layout to achieve maximum efficiency in storing and issuing supplies. Since cold storage plants represent a considerable investment and are expensive to operate, care should be taken to use all available space with economy.

- (1) *Fast-moving items.* Fast-moving items must be stored in areas where trips from stacks to shipping areas will be as short as possible.
- (2) *Heavy items.* If possible, heavy items, such as bags of flour or sugar, should be stacked close to the shipping point. Since such items will probably not be stacked high, they should be stored, wherever practicable, in low-ceiling areas. Where items must be stacked high or where there is danger of crushing containers, box pallets and dunnage should be used (fig. 8).
- (3) *Receiving and shipping area.* The receiving and shipping area should be located so that supplies may be received at the depot without interfering with supplies being issued at the same time. Provisions should be made in or near the receiving area for salvage operations or any repacking of supplies which may be necessary before storage. Supplies should be moved directly from carrier to stack wherever possible.



Figure 8. Use of dunnage to support bagged subsistence.

- (4) *Items subject to pilferage.* Small items that may be subject to pilferage must be stored where they can be under constant surveillance of responsible personnel. An area for the storage of such items should be located near the headquarters of the storage section and should be laid out so that it can be guarded at all times. A locked room or an area surrounded by concertina wire should be used.

- (5) *Dispersion.* When subsistence supplies are stored in area subject to enemy attack, they should be dispersed as widely as practicable. Supplies distributed over a large area will not all be destroyed if a bomb strikes. Individual items of supply should also be dispersed. It frequently is desirable to establish several separate storage areas, perhaps a mile or more apart, each containing a balanced stock so that one hit will not destroy the entire supply of any one item. Within each separated subsistence area, subsistence in stacks or buildings should be dispersed, often farther apart than required for ordinary fire prevention.

b. Storage Procedures.

- (1) *Block storage.* Subsistence items are usually stored in blocks. Small items are put in boxes or bins. A block of supplies is a stack one or more units high, two or more units deep, and two or more units wide. A block of supplies is always stacked by rows from the wall to the aisle. Care must be taken to store new shipments so that they will not block the issue of supplies of the same type previously received. Supplies must be withdrawn from a block by rows from the aisle toward the wall. They should never be withdrawn from across the front of a block (TM 10-250).
- (2) *Identification of stacks.* Stacks can be identified by the use of stack number plates. The stack numbers should measure at least

8 inches and the plate should be attached to the stack or suspended near it.

- (3) *Classification.* Subsistence supplies are segregated according to class (perishable or nonperishable), type of packaging, expected rate of issue, and conditions in the storage area.
- (4) *Turnover.* A rapid turnover of subsistence stock is required with the oldest items to be shipped out first. Every subsistence container should bear the date on which the contents were originally packed. This date should not be changed to indicate any subsequent repacking since it is the only indicator of the actual age of the stock.
- (5) *Inspection of subsistence.* Subsistence items must be inspected periodically. Periodic inspection or sampling will familiarize personnel with items being handled. Those items showing signs of deterioration should be issued immediately, salvaged, or condemned. Reclamation procedures are explained in AR 30-2220.
- (6) *Temperatures.* The ideal storage temperature for canned foods is 40° F. Higher temperatures increase chemical reactions and reduce quality of the product. Freezing of canned products may adversely effect the texture of the product and distort or burst the container. Lowering temperature during storage may retard deterioration of subsistence and growth of mold.

- (7) *Air circulation.* Air circulation to prevent the gathering of mildew and rust on certain items is promoted by proper method of stacking. When paulins are used, they should not cover the bottom third of stacks and, if possible, should be supported so that humid air is not trapped around cases.
- (8) *Ventilation.* Proper ventilation should be provided. Items that absorb odors should be segregated from items that give off odors.
- (9) *Protection against infestation.* Protection against infestation may be secured by the use of extremely high or low temperatures, by the use of sealed packages, and by segregation. Infested supplies should be kept away from those supplies that are free of insects. Rodents can be kept out of subsistence depots by the use of close-fitting doors and heavy wire screens. If rats are already in the building, traps should be used.

c. Fire Protection. The improvised type of warehousing used in a theater of operations requires that every precaution be taken to avoid fires. To minimize the possibility of fire, regulations must be promulgated and enforced to prohibit or restrict smoking. In addition, the following precautions will be taken :

- (1) Rubbish and undergrowth will be removed from the surrounding area.
- (2) The storage area will be kept free of flammable materials.
- (3) Fire-fighting equipment will be maintained in usable condition at all times.

- (4) Flammable storage areas will be kept from extending into the space kept free from storage structures.

44. PLANOGRAPH SYSTEM

a. Description. The planograph system of storage may be simplified and adapted for subsistence depots in the theater of operations. This system provides for dispersion of stocks by the physical division of filler subsistence into groups, each group containing various items making up a balanced menu. For instance, instead of having a group of 1,000,000 balanced rations stored together, there may be five groups of 200,000 balanced rations each. The five groups are stored and operated separately (A, fig. 9). Groups may be divided into warehouse positions according to nomenclature. Supplies are arranged so that position No. 1 in group A will carry the same supplies as the corresponding position in each other group. The actual quantities stored in each position will be governed by the size of the positions. Small lot items should be centrally located and close to at least two groups. This will provide accessibility to small lot items when they are needed to fill shipments from one or more groups. During temporary lulls, operations in one or more positions can be suspended and complete menus shipped from the remaining positions.

b. Records. The planograph system requires the use of a planograph chart, header cards, and locator cards.

- (1) The planograph chart is a graphic floor plan that indicates the number and location

WAREHOUSE NO. 1

A.

(200,000 Rations)

(200,000 Rations)

Positions						Positions					
1	2	3	4	5	Small	1	2	3	4	5	
Fruit	Vege-	Beans	Meats	Butter	Lots	Fruit	Vege-	Beans	Meats	Butter	
Juices	tables	Cereals		Eggs		Juices	tables	Cereals		Eggs	
		Biscuits		Misc				Biscuits		Misc	

Group A

Group B

WAREHOUSE NO. 2

(200,000 Rations)

(200,000 Rations)

Positions						Positions					
1	2	3	4	5	Small	1	2	3	4	5	
Fruit	Vege-	Beans	Meats	Butter	Lots	Fruit	Vege-	Beans	Meats	Butter	
Juices	tables	Cereals		Eggs		Juices	tables	Cereals		Eggs	
		Biscuits		Misc				Biscuits		Misc	

Group C

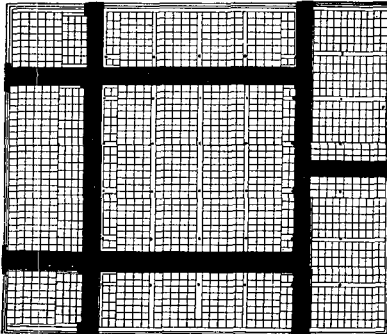
Group D

(200,000 Rations)

Positions				
1	2	3	4	5
Fruit	Vege-	Beans	Meats	Butter
Juices	tables	Cereals		Eggs
		Biscuits		Misc

Group E

B.



A. Grouping of items.

B. Floor plan chart.

Figure 9. Planograph system for subsistence warehouse.

of pallets in each position of the group. Maximum stock levels for each position may be determined from this chart. This chart is used by personnel in the storage section to plan the placing of subsistence items, to record movement of stock, and to record vacant space to be utilized (B, fig. 9).

- (2) The header card shows the nomenclature, date received, number of units received and the location.
- (3) The locator card, which is filed behind each header card, is prepared for each position. The locator card indicates the actual quantity on hand for each position, plus the date of pack. If the header card indicates five positions (locations by warehouse and section), there will be five locator cards filed behind it. By studying the locator cards, personnel can determine the positions in which incoming shipments should be stored or the positions from which outgoing shipments should be taken.

45. STORAGE OF NONPERISHABLE SUPPLIES

The storage of nonperishable subsistence in the theater of operations will consist of the storage of such items as canned and dehydrated products. Storage precautions for specific items of subsistence are given in TM 10-250.

a. Covered Storage.

- (1) Warehouse space must be dry and protected from rodents and vermin. It may be either heated or unheated. Nonperishable subsist-

ence keeps best when stored in a cool dry place. In climates where low temperatures are common, the use of heated space is desirable. While freezing should be avoided, it does not seriously injure most items. Such heated space as is available should be used first in the storage of goods of high water content preserved in glass and in cans. For example, containers of food, such as cherries, lima beans, and string beans, are likely to burst if the contents expand in freezing. To avoid freezing, heat should be provided before the inside temperature drops to 28° F.

- (2) Items will be arranged to facilitate their receipt, protection from deterioration, repackaging if necessary, and issue. The average stack height in closed storage is 8 feet.
- (3) Items, such as beans, infested by weevils, infested dried fruits, and products with dry rot will be removed immediately from the warehouse to avoid infestation of regular stocks.
- (4) Containers that have been opened and the contents partly removed will be stored in a locked room or fenced-off area where pilferage will not occur. All sensitive items will be kept in a locked room.
- (5) Where covered storage with floors is being used, safe floor loads must be considered. Where the floor load is doubtful, a competent engineer will be consulted to establish floor load capacity. Floors having a safe

load capacity of 250 pounds per square foot will usually support with safety the operation of loaded fork lift trucks whose capacity does not exceed 4,000 pounds. The floor space adjacent to aisles over which the trucks travel will not be loaded beyond its rated safety load and no other concentrated loads will be permitted in aisles when the trucks are operating.

- (6) Use of every cubic foot of available covered storage space is mandatory in the theater of operations. Since covered storage space will usually be inadequate, placing supplies within the depot area should be carefully considered.
- (7) All sacked items should be palletized and dunnage used between layers to decrease settling of the stack. Dunnage spaced evenly between layers also aids in counting sacks (fig. 8).

b. Open Storage.

- (1) In open storage, supplies will be stacked just as carefully as in closed storage. Active items will be stored near the loading point. Items in great quantity should be dispersed (par. 43a(5)). The average stack height for outdoor storage is 6 feet. Rectangular stacks which are to be covered with paulins should be built with sloping tops so that precipitation will drain off.
- (2) Dunnage may be made of lumber, logs, railroad ties, pallets, or steel matting. Bamboo, coral, or other suitable materials may also

be used. Because of its porous nature, coral makes an excellent surfacing material for supply sites. However, since supplies put directly upon coral will absorb moisture, coral should never be used as a substitute for dunnage. A combination of coral and dunnage is required for maximum protection of supplies.

- (3) Wrecked and demolished buildings are sources of lumber for dunnage purposes. New lumber can sometimes be obtained when supply vessels unload dunnage which has served its purpose.
- (4) In emergencies boxes and crates can be placed under subsistence items in order to keep supplies off the ground.
- (5) Crated items can often be stacked for a short time on 2 by 4's, or 2 by 6's, logs, or other supports when the ground is firm or the load is light enough. However, if items are to be stacked for a long time, better dunnage is necessary.
- (6) Salvaged airplane landing mats laid on logs make excellent dunnage since they are lightweight, rigid, and durable.
- (7) Prefabricated dunnages can be prepared in advance, moved easily from place to place, and used countless times.
- (8) If dunnage can be laid out and built before the arrival of subsistence supplies, such supplies can be received handled, and stored in a more orderly fashion. Containers can be placed on the platforms without restacking.

46. STORAGE OF PERISHABLE SUPPLIES

a. General. More than one-half of the field ration A, which includes such perishables as fresh or frozen meats, vegetables, and fruits, is of a perishable nature. The subsistence depot company will receive, store, and issue perishables included in the field ration A under stable conditions and in static phases of military operations when refrigeration for the preservation of perishables is available. Perishables are usually available in the base section of operations but are furnished troops in forward areas as combat conditions permit. Perishables are obtained locally or by shipment from the continental United States. For purposes of Army classification only items belonging to the following groups are called perishables: meat and meat products; fish and other water food products; poultry, eggs, and dairy products; fresh fruits and vegetables; and prefrozen foods. Refrigeration facilities must be properly designed and properly operated to prevent or minimize spoilage and deterioration. Since space for refrigerated items is difficult to get in a theater of operations, full use of the floor space is essential (SR 30-20-10).

b. Cold Storage Plants.

- (1) Cold storage plants operated by the subsistence depot company in the theater of operations with assistance of T/O&E 10-500 units will consist of rehabilitated plants in the theater of operations, civilian storage plants converted to Army use, and prefabricated refrigerators. Rehabilitated or converted fixed refrigeration plants, when available, will usually consist of four or

more rooms, each designed for a definite purpose:

- (a) A frozen products room operated at a maximum of 10° F. for the storage of all frozen items.
 - (b) A room operated at 30° to 32° F. for the storage of fresh carcass meat, smoked meats, and other meat products.
 - (c) A room operated at 35° F. for shell eggs and dairy products.
 - (d) A room operated at 35° to 38° F. for fresh fruits and vegetables. In addition, at the larger installations there is provided a room, which may be carried at 40° F. by means of refrigeration or by ventilation, for fruits and vegetables that are less perishable and that can be carried safely for a limited period at a higher temperature.
- (2) For storage procedures in cold storage plants see SR 30-20-10.
- c. *Prefabricated Refrigerators.*
- (1) The frozen food prefabricated refrigerator, when required, will be used to store pre-frozen foods at a maximum temperature of 10° F.
 - (2) Prefabricated sectional refrigerators come in one-, two-, and three-unit sizes and are used for storage of perishables at a maximum temperature of 35° F.
 - (3) Food will be arranged the same as in the larger fixed installations. By placing the food in compartments contamination is avoided.

- (4) When only two prefabricated refrigerators or compartments are available for storage of all perishables, storage may be planned as follows: One refrigerator or compartment can be used for eggs; dairy products, fresh meats, and items with little odor. The other can be used for fresh fruits, vegetables, and items with distinct flavor or odor. Products in sealed containers can be put in either compartment.
- (5) Where only one prefabricated refrigerator for storage of all perishables is available, the box should be divided into two sections and the system described in (4) above used.
- (6) Where the net storage capacity is 1,000 cubic feet and over, the prefabricated refrigerators may be put in a line on a raised covered platform with adequate space for maneuvering vehicles. If raised foundation or platform is constructed, the refrigerator platform can be brought to the same height as a truck bed and loading and unloading operations speeded up. A roof over the refrigerators keeps the sun off the equipment and makes possible lower operating temperatures. If the eaves are extended on all sides, personnel and equipment will be better protected.

d. Temperature Testing. The section sergeant will take three readings daily on thermometers in each storage room or compartment. One reading will be taken at the beginning of the day's operations, another at midday, and the final one at the close of the day's operations. If possible, rehabilitated or

converted refrigeration plants should be furnished with two indicating thermometers in each room. The prefabricated refrigerators are equipped with a thermometer in each compartment. Required temperatures and a list of items which will be stored at these temperatures should be posted conspicuously outside each refrigerated room.

e. Weighing Supplies. Two 300-pound platform weighing scales are provided the perishable section of the depot headquarters platoon of the company. Also each perishable section of each of the three operating platoons is provided with two similar scales. The scales, which are to be maintained in good working condition, are used at the refrigeration plant for test-weighing supplies received and for weighing out small issue orders.

f. Safety Precautions. Safety precautions for storage operations outlined in SR 30-20-10 will be followed.

g. Defrosting. Refrigerating equipment will be defrosted when necessary according to manufacturer's instructions. Normally, a semiautomatic defrosting device will be furnished with the prefabricated refrigeration equipment. Ice formed on any equipment will never be removed by hammering or with an ice pick, since serious damage to the equipment may result.

h. Sanitation.

- (1) Personnel will remove all filth or trash at frequent intervals. Refrigeration units will be kept thoroughly clean at all times. The use of smoking or chewing tobacco should not be permitted within cold storage facilities.

- (2) The section sergeant will examine all foods for condition and sanitation as received or issued. Foods which are contaminated or which because of deterioration, defrosting, or other causes are unsafe for consumption will be examined by medical personnel designated by higher headquarters.

i. *Open Storage Sheds.* When required, fruits and vegetables can be stored quite successfully in open-sided sheds for varying lengths of time in most climates. Where refrigerating space is limited, full use of open storage of perishables should be made.

47. PACKING AND CRATING

The subsistence depot company will usually be required to operate a packing and crating shop. Equipment may include power and hand tools. The shop should be near the principal loading point and, if possible, near the food items expected to require the most packing, repacking, or crating. The extent of packing necessary for supplies procured locally is dependent upon their nature, the time they are to be kept in storage, and the manner in which they are to be shipped (app. I, par. 6).

48. LOADING AND UNLOADING

a. *Labor Estimate.* Although service troops, prisoners of war, and civilian labor usually will be available at subsistence depots, personnel of the company must know how to load and unload trucks and railway cars efficiently. The maximum number of men that may be used to advantage in loading or unloading one freight car is five (one checker-operator and

four laborers). The maximum crew for loading or unloading average loads by hand on Army trucks is five men (one working foreman and four laborers). The maximum number of men required to load or unload one freight car or truck of palletized supplies using mechanical handling equipment is three (one working foreman and two materials handling equipment operators).

b. Time Estimates.

- (1) Under average conditions, the time estimate for average packaged or bundled loads at subsistence depots, using a 5-man crew for each truck or trailer, is as follows:

<i>Loading and unloading</i>	<i>2½-ton truck</i>	<i>1-ton trailer</i>
Average time-----	50 min----	20 min.
Minimum time-----	30 min----	12 min.

- (2) For basic loads, under field conditions, where the amount of labor available is unlimited:

	<i>Day</i>	<i>Night</i>
Unloading-----	15 min----	30 min.
Loading-----	30 min----	60 min.

49. LABOR

Labor requirements for planning purposes when handling subsistence supplies by hand are computed on the average of 4 tons a day per man. For short periods, the average is much higher.

a. Service Troops.

- (1) Upon the request of the depot commander, service troops are furnished for labor requirements. In the communications zone nondivisional service troops are provided by the section commander in which the

depot is located. In the combat zone non-divisional service troops are provided by higher headquarters.

- (2) Since service troops are trained in working units, their work will be most efficient when the units are kept intact. Men of each squad, for example, work best under their own leader, each man knowing from experience his particular assignment in the group.

b. Civilian Labor.

- (1) Civilian labor for the operation of subsistence depots in allied or neutral countries is obtained voluntarily for the Army through existing national or local government sources. In enemy countries, labor may be requisitioned.
- (2) All civilian labor, enemy or otherwise, must be paid regularly. The depot will have the initial responsibility of keeping records. Records should contain the names, addresses, classification, dates and hours worked, wages, rates, and any other required information. Rates of pay are determined by higher headquarters.
- (3) Minimum and maximum hours of duty for civilian employees in a theater of operation will be announced by higher headquarters.
- (4) Depot installations must be made safe against pilferage by civilian workers. Adequate measures to protect subsistence items when being checked, stored, and packed must be established and enforced.

- (5) If required, provision should be made for training civilian labor in the work it is expected to do.
- (6) Civilian leaders should be designated and fully informed as to the duty to be performed. They in turn can supervise their crews. Periodic checks will be made by company depot personnel.

c. Prisoner-of-War Labor. Prisoner-of-war labor may be employed in the depot in accordance with the provisions of the Geneva convention (TM 19-500).

50. OPERATING SHIFTS

With an ample labor supply the subsistence depot may be operated on a daily schedule of three 8-hour shifts. If the labor supply is small, the depot may be operated on a daily schedule of two 12-hour shifts. The depot may be operated on a daily schedule of two shifts, providing a 16-hour work day for shift 1 and an 8-hour work day for shift 2 on alternate days and an 8-hour work day for each shift on week ends. The weekly schedule should be alternated, shift 1 starting at 0001 hour on one Monday and shift 2 starting at 0001 hour the next Monday. The schedule is as follows:

Hours	Shifts						
	Mon-day	Tues-day	Wed-nesday	Thurs-day	Fri-day	Satur-day	Sun-day
0001-0800-----	1	2	1	2	1	2	1
0800-1600-----	2	1	2	1	2	1	2
1600-2400-----	1	2	1	2	1	-----	-----

51. PERSONNEL FOR SHIFTS

Personnel qualifications are always the basis for planning shifts. Since qualifications differ widely, the following plan for distribution of personnel is a recommendation only. When the subsistence depot company is to operate around the clock on a schedule of two shifts (par. 50) or on a schedule of two 12-hour shifts, personnel affected by shifts may be distributed as follows:

a. Company Headquarters. The executive officer, first sergeant, mess steward, motor sergeant, armorer, and bugler and messenger should perform their duties on a schedule conforming to prevailing conditions. Other personnel may be scheduled on shifts as follows:

Personnel	Shift 1	Shift 2
Cook No. 1.....	x	
Cook No. 2.....		x
Cook No. 3.....	x	
Cook No. 4.....		x
Cook No. 5.....	x	
Cook No. 6.....		x
Supply sergeant.....	x	
Supply assistant.....		x
Company administrative clerk.....	x	
Administrative personnel corporal.....		x
Wheel-vehicle mechanic No. 1.....	x	
Wheel-vehicle mechanic No. 2.....		x
Wheel-vehicle mechanic No. 3.....	x	
Wheel-vehicle mechanic No. 4.....		x

b. Depot Headquarters Platoon. Personnel of the platoon headquarters should perform their duties on a schedule conforming to prevailing conditions. Personnel of the sections may be put on shifts as follows:

Personnel	Shift 1	Shift 2
Nonperishable section:		
Section sergeant.....	x	
Section assistant.....		x
Checker No. 1.....	x	
Checker No. 2.....	x	
Checker No. 3.....		x
Checker No. 4.....		x
Supply clerk No. 1.....	x	
Supply clerk No. 2.....	x	
Supply clerk No. 3.....		x
Fork lift operator No. 1.....	x	
Fork lift operator No. 2.....		x
Warehouseman No. 1.....	x	
Warehouseman No. 2.....	x	
Warehouseman No. 3.....		x
Warehouseman No. 4.....		x
Perishable section:		
Section sergeant.....	x	
Section assistant.....		x
Checker No. 1.....	x	
Checker No. 2.....		x
Refrigeration mechanic.....	x	
Supply clerk.....		x
Fork lift operator.....	x	
Warehouseman No. 1.....	x	
Warehouseman No. 2.....		x

c. Operation Platoons. Personnel of the platoon headquarters should perform their duties on a schedule conforming to prevailing conditions. Personnel of the sections may be put on shifts as follows:

Personnel	Shift 1	Shift 2
Nonperishable sections:		
Section chief.....	x	
Section assistant.....		x
Checker No. 1.....	x	
Checker No. 2.....	x	
Checker No. 3.....		x
Checker No. 4.....		x
Supply clerk No. 1.....	x	
Supply clerk No. 2.....	x	
Supply clerk No. 3.....		x
Fork lift operator No. 1.....	x	
Fork lift operator No. 2.....		x
Warehouseman No. 1.....	x	
Warehouseman No. 2.....	x	
Warehouseman No. 3.....		x
Warehouseman No. 4.....		x
Perishable sections:		
Section chief.....	x	
Section assistant.....		x
Checker No. 1.....	x	
Checker No. 2.....		x
Refrigeration mechanic.....	x	
Supply clerk.....		x
Fork lift operator.....	x	
Warehouseman No. 1.....	x	
Warehouseman No. 2.....		x

52. DEPOT TRAFFIC CONTROL

a. Responsibility. Necessary traffic regulations in the depot area are issued by the depot commander or by the officer designated by him as traffic control officer.

b. One-Way Traffic. One-way traffic through the depot area should be required whenever possible.

c. Adequate Signs. Signs pointing toward the depot should be posted throughout the surrounding country for the direction of vehicle drivers traveling to the depot. In the depot itself an adequate number of signs should be erected to direct traffic to all depot areas, to designate one-way roads, to establish speed limits, and in all other ways to contribute to the smooth flow of traffic into, through, and out of the depot. In addition, warehouses, bays, and all other storage areas should be clearly marked.

d. Assignment of Guides. One or more guides may be assigned to each group of trucks arriving at the depot as part of the traffic control plan. The guides will stay with the trucks until they leave the depot. Drivers of trucks will be directed by the guides to all loading or unloading points.

e. Traffic Plan. A traffic plan in graphic form usually will be provided each guide and all military police assigned to traffic control. The plan will enable personnel to direct all vehicles to the proper area.

f. Parking Areas. Parking areas provided outside the depot area will lessen the traffic burden and reduce traffic jams. A plan to move trucks from the parking area to the loading and unloading areas should be developed by the traffic control personnel.

53. NIGHT OPERATION

At the subsistence depot, night operations may be required in order to handle incoming supplies and ease the burden of daytime operations. Night operations are scheduled particularly in forward areas to avoid hostile aerial observation. The receipt, storage, and issue of supplies at night will be carefully planned and executed so that speed and accuracy will be achieved. The company is provided with a 5-kilowatt electric lighting equipment set No. 4. The platoon headquarters of the depot headquarters platoon and each platoon headquarters of the three operating platoons are provided with a portable, construction floodlight equipment set No. 2. The floodlight set will be used in outdoor operations when local security conditions permit. Gasoline lanterns also may be used for night operations. Additional lighting equipment is requisitioned through prescribed channels.

54. STOCK CONTROL PROCEDURE

a. General. Excess stocks waste shipping and storage space. Adequate records of physical stocks must be maintained by the subsistence depot company to place food items in the hands of troops. Accurate inventories are essential to control the flow of subsistence items through the depot.

b. Stock Levels. Stock levels must be stated accurately by subsistence depot records so that replenishment action may be taken. Stock levels are stated in total amounts of each item in units of issue, such as: each, can, pound, case, or basket. To guard against disruption of supply lines from the commu-

nications zone, an army depot normally keeps enough reserve stock of class I items for a 10-day period of operations based on the army's consumption rate.

Section II. RECEIVING AND ISSUING SUBSISTENCE SUPPLIES

55. SOURCES OF SUBSISTENCE

a. Communications Zone. When attached to headquarters and headquarters company, quartermaster base depot (par. 4), the subsistence company will receive, store, and issue subsistence supplies obtained by the depot from the continental United States, from allied and neutral countries, and from local sources.

b. Combat Zone. When assigned or attached to headquarters and headquarters detachment, quartermaster battalion (par. 4), the subsistence depot company will receive, store, and issue subsistence supplies received from communications zone issue depots and possibly from local sources.

56. RECEIVING SUBSISTENCE

a. Before Receipt. Certain preliminary steps should be taken before the arrival of a shipment of subsistence supplies at the depot so that there will be no delay in receiving the supplies. The exact procedure is at the discretion of the depot commander but in general the following steps are necessary:

- (1) When the company is operating as a unit, the platoon leader of the depot headquarters platoon will request information concerning

incoming shipments from the subsistence warrant officer, who usually serves as transportation officer for the depot. The subsistence warrant officer receives information regarding incoming shipments from the transportation officer in the communications zone or army area. This information usually includes the number and content of railroad cars, trucks, or ships expected; the identification numbers of each rail car; and the names and identification numbers of ships.

- (2) When the platoons are operating separately, the platoon leader in charge of the operating platoon concerned will request information regarding incoming shipments from the transportation officer in the communications zone or army area.
- (3) The transportation officer of the depot (the subsistence warrant officer or the platoon leader, as the case may be) will have the rail cars or trucks spotted for unloading.
- (4) The platoon leader plans the future operations. He assigns warehouse storage space, requisitions additional labor if required, and notifies all personnel who are to take part in the operation. The platoon sergeant or sergeants and assistants who are to receive the supplies will be notified so that they may be ready for the unloading.

b. At Receipt. For planning purposes, the following steps may be considered as general procedure to be carried out when the shipment arrives:

- (1) Subsistence items are unloaded from the carrier, inspected, and checked against shipping documents.
- (2) Items are put in storage.
- (3) Items are tallied in on shipping documents (or additional tallies, if necessary) at warehouses or storage areas.
- (4) The location of subsistence supplies is indicated on the master locator chart (par. 63).
- (5) Stock record cards are posted to indicate receipt and location of supplies (par. 60j). Tally-in figures on shipping documents serve as authority for posting stock record cards.

57. CHECKING SUBSISTENCE

a. Incoming Items. Accurate checking of incoming subsistence items is possible only when each shipment is checked immediately upon receipt. If the flow of items permits, the check should be made as follows:

- (1) When items are unloaded from the carrier.
- (2) When the items are stored. This check is unnecessary if supplies are transferred to storage direct from the carrier.

b. Outgoing Items. Outgoing class I items are given a final check immediately before they leave the depot. A check made too long before a shipment leaves may not agree with the actual quantity or quality of supplies issued.

58. ISSUING SUBSISTENCE

a. Communications Zone. In the communications zone, the subsistence depot company issues class I items to units designated by higher headquarters. Items may be issued to a supply point within the communications zone for issue to troops.

b. Combat Zone. In the combat zone, the subsistence depot company normally issues class I supplies to army class I supply points operated by quartermaster subsistence supply companies. The subsistence depot company may issue class I supplies to divisions, to corps, to army, to separate battalions, and to air force units.

c. Procedure. The procedure for issuing subsistence supplies in either the communications zone or combat zone is at the discretion of the depot commander but may be as follows:

- (1) When the requisition or ration request arrives at the depot it is checked for availability of items by the chief subsistence specialist if the company is operating as a unit. The request is checked by the platoon sergeant if the platoon is operating separately.
- (2) If the company is operating as a unit, the approved ration request is sent to the platoon headquarters of the depot headquarters platoon. If the platoon is operating separately, the ration request is sent by the platoon sergeant to the appropriate section, or broken down into perishable and nonperish-

able items at platoon headquarters and the lists forwarded to the appropriate section.

- (3) The items to be issued are checked.
- (4) Shipping documents are prepared at the office of the depot commander if the company is operating as a unit or at a platoon headquarters if the company is operating separately. If a representative of the receiving unit is present, he signs the shipping documents certifying to the receipt of the items. Any adjustment due to menu changes should be shown on the shipping papers. All shipping documents and menus are shipped forward with the subsistence.
- (5) Stock record cards are posted to indicate the issue of items.
- (6) Records in the depot stock locator are adjusted to take account of items issued.

c. Posting Guards. Railroad cars should be sealed and windows nailed closed. In order to protect box-cars against pilferage of subsistence items, guards must be posted to ride on the cars. Arrangements should be through the Provost Marshal for the assignment of military police to this duty.

59. PROPERTY ACCOUNTING

Property accounting procedures which apply to the subsistence depot company are outlined by the theater commander and complied with by the depot. Applicable Department of the Army doctrine in regard to stock control and property accounting will be found in the references listed in appendix I.

Section III. RECORDS AND REPORTS

60. FILING OF INTERNAL RECORDS

Processing of papers at a depot operated by the subsistence depot company is kept to a minimum in order to expedite the receipt, storage, and issue of supplies. The office of the depot commander or platoon headquarters when the platoon is operating separately will be responsible for keeping the following document files, as required by operations:

a. Due-In Document File. The due-in document file, which is kept by the company, must be referred to in order to find out whether an item or items that are due-in will be available or nonavailable when shipment is made. Documents kept in the due-in document file may be letters, requisitions, purchase orders, teletype messages, back order lists, car arrival reports, contracts, vendor's or Army shipping documents, reports of shipments, or similar papers. The due-in register (DA AGO Form R-5614) indicates items due-in with expected delivery dates and will be kept with the due-in document file (fig. 10).

b. Debit Voucher File. The debit voucher file contains records of incoming shipments. Included in the file may be shipping documents and other related papers. A master debit voucher register (WD AGO Form R-5174) and debit voucher assignment register (WD AGO Form R-5173) should be maintained with the debit voucher file (figs. 11 and 12).

c. Unserviceable Property File. The unserviceable property file is maintained by the company for

DUE-IN DOCUMENT REGISTER DEPT Q-55				
Document Identification Number	Date Rec'd	Contract No. Shipping Order No. Purchase Order No. Delivery Order No.	Consignor	Items or Remarks
6321	3 Mar	D.O.-4	52d Base Depot	Pickles, sweet
6322	3 Mar	P.O. 44684-0	52d Base Depot	Macaroni, dry
DA AGO Form R-5614 1 January 50				

Figure 10. Due-in document register.

MASTER DEBIT VOUCHER REGISTER DEPT Q-55				
Voucher Number	Date Posted	Receiving Document Identification Number	Consignor	Remarks
3131	3 Jun	A.S.D. 8431	52d Gen Depot	Eggs, fresh
3132	3 Jun	P.O. 162d	42d Base Depot	Tomatoes, canned, No. 10
3167	17 Jun	A.S.D. 5431	42d Base Depot	Tomatoes, canned, No. 10
3168	17 Jun	A.S.D. 5321-1	63d Base Depot	Ration, individual, combat
3169	18 Jun	A.S.D. 5342	63d Base Depot	Ration, individual, combat
WD AGO Form No. R-5174 25 September 1946				

Figure 11. Master debit voucher register.


DEBIT VOUCHER ASSIGNMENT REGISTER 7-55							
Voucher Number	Date Asg	Receiving Document Identification Number	Remarks	Voucher Number	Date Asg	Receiving Document Identification Number	Remarks
3131	1 Jun	A.S.D. 8431	Eggs				
3132	1 Jun	P.O. 1620	Tomatoes, canned				
							
3145	2 Jun	A.S.D. 5619	Peanut butter				
3146	2 Jun	A.S.D. 5620	Peas, canned				
3147	2 Jun	A.S.D. 4550	Spinach, canned				
3148	2 Jun	A.S.D. 4550-1	Tea				
WD AGO Form No. R-5173 25 September 1945							

Figure 12. Debit voucher assignment register.

the listing of items that cannot be used by the depot. The items may be either reclaimed, salvaged, or destroyed.

d. Credit Voucher File. The credit voucher, which contains records of outgoing shipments, consists of a daily ration request file. Included in this file may be copies of ration requests for subsistence supplies from units being served, copies of reports of strength, purchase requests, notices of delayed items, notices of nonavailability, shipping documents, and allied papers. A requisition control and credit voucher register (WD AGO Form R-5175) should be maintained (fig. 13). Upon receipt of a ration request, the document will be registered and assigned a voucher number.


DATE <u>15 Jun 50</u>		NO. <u>27</u>					
REQUISITION CONTROL AND CREDIT VOUCHER REGISTER 52d BASE DEPOT							
Voucher Number	Sub-Voucher Number	Station and Requisition Number	From	Date To Whse	Required Date	Date of Shipment	Date of Due-Out Release
47238	1,2	30-134 4-310	687th Sub-Depot	15 Jun	24 Jun	23 Jun	23 Jun
47239		14-156-8796	945th Sub-Depot	15 Jun	30 Jun	30 Jun	28 Jun
							
47248		30-666-148	678th Sub depot	19th Jun	21 Jun	21 Jun	21 Jun
47246		14-156-8799	945th Sub depot	19th Jun	23 Jun	23 Jun	23 Jun
WD 100 Form No. R-5175 25 September 1945							

Figure 13. Requisition control and credit voucher register.

e. Property Audit File. The property audit file which includes shipping documents is required by the company when operating in the communications zone. The documents should be maintained in the same sequence as requisition files and segregated by consignee for purposes of audit.

f. Shortage Report File. A report file is required when quantities of subsistence supplies received are in excess of or less than quantities stated on shipping documents. Copies of shipping documents and related papers must be kept in this file.

g. Inventory Adjustment Report Voucher File. The inventory adjustment report voucher file contains the inventory adjustment report when its use is re-

quired in the communications zone. Overages and shortages are shown on the report. An inventory adjustment report voucher register may be prepared to list identification numbers. A number will be used for each inventory adjustment report prepared.

h. Due-Out Suspense File. The due-out suspense file which is maintained by the company contains documents which are filed pending the filling of the requisitions.

i. Locator File. In order to establish an accurate record of location of every item, a locator file should be established. This file should show location of item (fig. 9) by warehouse, section, bay, row, or box pallet (TM 10-250). Such other information as required may be added in this file.

j. Stock Record Card File. A stock record card file for each subsistence item must be maintained in platoon headquarters. WD AGO Form 10-110 or similar form should be used. The stock record card file, the locator cards (*i* above), and a master locator chart (par. 63) are the basic records used to locate and account for subsistence supplies.

61. SHIPPING DOCUMENTS

A sample shipping document control register for use by the subsistence depot company is shown in figure 14. Improvised records for controlling the selecting, packing, and assembling of shipments may be used in the perishable and nonperishable sections as required (TM 38-705).


SHIPPING DOCUMENT CONTROL REGISTER DEPOT: 2-55					
Voucher No.	Additional Sub Nos.	Date Rec'd	Date to ASD Center	Date Shipped	Remarks
14534	4.5	7 Jun	7 Jun	12 Jun	1 day delay
14535		7 Jun	7 Jun	13 Jun	On time
					
14585	4.6	8 Jun	8 Jun	10 Jun	2 day delay
14587		8 Jun	8 Jun	11 Jun	
14591		9 Jun	9 Jun	9 Jun	
WD AGO Form R-5177, 25 September 1945					

Figure 14. Shipping document control register.

62. REPORTS TO HIGHER HEADQUARTERS

The types of reports required of the subsistence depot company are normally prescribed by headquarters of army or communications zone section. Usually, the company may be expected to prepare miscellaneous reports as follows:

a. Stock Status Report. A stock status report (fig. 15) is prepared by the company and submitted to army or communications zone periodically as prescribed. Information on the stock status report includes but need not be limited to balances on hand, issues, dues-in, and dues-out.

b. Tonnage Summary. A tonnage summary is usually prepared on a monthly basis. This summary should cover receipt, issues, stock reware-

STATUS REPORT (REPORT OF CLASS I SUPPLIES)						
To <u>Quartermaster, Hq. Fifth Army</u>			Supply Point <u>608</u>			
Place <u>H 6 M 9</u>			Period <u>12th to 19th November 1950</u>			
ITEM	UNIT	ON HAND LAST REPORT	RECEIVED SINCE LAST REPORT	TOTAL	ISSUED	ON HAND
<u>Ration A</u>	<u>Each</u>					
<u>Ration B</u>	<u>Each</u>	<u>204, 117</u>	<u>47, 516</u>	<u>621, 633</u>	<u>411, 412</u>	<u>210, 221</u>
<u>Ration S-in-1</u>	<u>Each</u>	<u>7, 125</u>	<u>48, 300</u>	<u>55, 425</u>	<u>48, 300</u>	<u>7, 125</u>
<u>Ration C-4</u>	<u>Each</u>		<u>21, 000</u>	<u>21, 000</u>	<u>19, 500</u>	<u>1, 500</u>
<u>Packet, 1A-1</u>	<u>Each</u>					
<u>Packet, aid station</u>	<u>Each</u>	<u>20</u>		<u>20</u>		<u>20</u>
<u>Packet, Hospital</u>	<u>Each</u>					
<u>Packet, Sundries</u>	<u>Each</u>					
<u>Bread</u>	<u>Pound</u>	<u>37, 400</u>	<u>211, 900</u>	<u>249, 300</u>	<u>211, 100</u>	<u>38, 200</u>
<u>Hay</u>	<u>Pound</u>					
<u>Grain</u>	<u>Pound</u>					
Date <u>20 November 1950</u>			Signature <u>Douglas Fraser</u> <u>Lt. QMC</u>			

DA AGO Form R-5659
1 Apr 1951

Figure 15. *Status report.*

housed, and balance on hand in terms of tons. A tonnage summary reflects the over-all activities of the depot and is used as a basis for future operations. The summary may be prepared on tonnage handled

by rail, truck, barge, air, or other methods. It may be submitted to higher headquarters.

c. Storage Data. Periodically, storage data is prepared, indicating the amount and kind of storage space occupied and the amount and kind of storage space available. Space for perishable storage is usually calculated separately. However, refrigerated space is usually calculated when the storage data is prepared.

d. Perishable Report. In general, the perishables report takes the form of a status report. The report is submitted as often as required by higher headquarters.

e. Work Output Summary. A work output summary is usually compiled by the company in order to show the progress being made. The summary should show the categories of labor, for example: military, civilian, prisoners of war, etc., and the tonnage received, issued, rewarehoused and the total tonnage and total manhours. The summary may reflect average work accomplished per man.

63. MASTER LOCATOR CHART

A master locator chart or diagram should be set up for the subsistence depot company. The chart should record the space layout and include the size, shape, and location of all storage areas. Identifying symbols should be assigned to all areas (fig. 16).

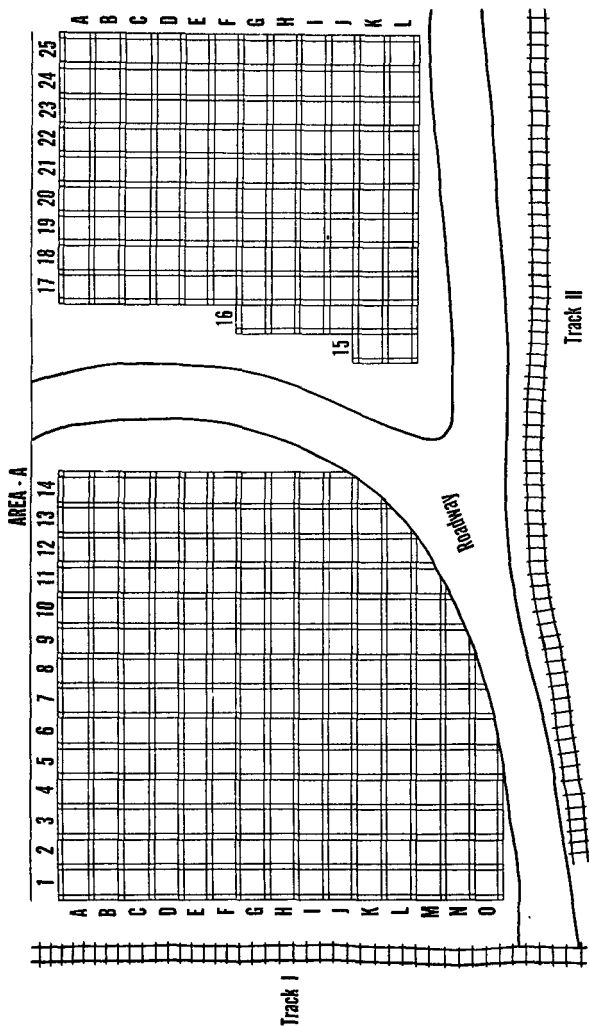


Figure 16. Section of a master locator chart showing one of the open storage areas.

Section IV. OPENING-UP, TAKING-OVER, AND CLOSING-OUT OPERATIONS

64. OPENING-UP OPERATIONS

The depot commander on opening up operations of a subsistence depot will—

a. Select a site for operations, including an adequate bivouac site or quarters for personnel.

b. Work out the standing operating procedure for the new mission.

c. Establish sanitary, security, fire protection, and camouflage measures for the depot.

d. Arrange for communication facilities with higher headquarters.

e. Obtain general information about the units to be served.

f. Notify higher headquarters and units which are to be served when operations are ready to begin.

65. TAKING-OVER OPERATIONS

The depot commander on taking over the operations of a depot will—

a. Acquaint himself with the mission and standing operating procedure of the depot.

b. Check security, fire protection, and camouflage measures established for the depot.

c. Establish contacts with higher headquarters and commanders of receiving units.

d. Check inventory against property, equipment, and supplies.

e. Secure transfer of unit funds.

f. Check roster against the table of organization.

g. Check morning report against the roster.

66. CLOSING-OUT OPERATIONS

The depot commander on closing out the operations of a subsistence depot will—

- a.* Comply with orders from higher headquarters.
- b.* Notify higher headquarters of the exact time when operations will stop in the area and of the approximate time when operations will begin in the newly designated area.
- c.* Prepare a plan for movement by rail or truck and instruct company personnel in its provisions.
- d.* See that all equipment is loaded properly.
- e.* See that latrines are closed and that the area is thoroughly policed.

Section V. OPERATING UNDER UNUSUAL CONDITIONS

67. ARCTIC

The subsistence depot company may have the responsibility of maintaining large storage areas at arctic base camps. Enough supply reserves to withstand a minimum of 6 months without delivery are recommended for these camps. Rations will usually be as compact and light as possible. The general principles of storage as practiced in the temperate zone are applied as much as possible to arctic storage. Since transportation space is usually limited, use of dried or dehydrated foods is required.

a. Location of Depot. The subsistence depot will be located as close as practicable to using troops. Provision for adequate transportation, drainage, dispersion, and accessibility must be made in planning the location of the depot.

b. Closed Storage. When operating at an arctic base, the subsistence depot company will use closed storage facilities as much as possible.

- (1) *Cooler room.* The cooler storage room, which provides protection for perishables, should be maintained at a temperature of 35° to 40° F. When sudden and extremely low temperature changes occur, provision for heating the room should be made.
- (2) *Freezer room.* The freezer storage room, which is used for the storage of all frozen foods, should be maintained at a temperature of 10° F. When bread is received, it may be stored in the freezer storage room for not over 2 to 3 months.
- (3) *Heated room.* The heated storage room, which provides storage for fresh foods, such as potatoes, onions, and most leafy vegetables, during low-temperature periods should be kept at a temperature above freezing. Whenever space is available, canned goods, milk, and fruit juice must be protected against freezing by being stored in the heated storage room.
- (4) *Dugout.* In areas south of the permafrost area (areas of permanently frozen ground beneath the surface of the earth) a ration dugout may be excavated. This type of storage facility is similar to a root cellar and may be used for the storage of fresh perishables. The entrance to the dugout should be protected by a shed to prevent blockage by snow during the winter.

c. Open Storage. Open storage may be used for the storage of combat and operational types of rations when heated space is not available. The cases will be put on dunnage and protected by tent fly or paulin covers if practicable. The covers should be firmly lashed or secured with stakes and guy lines to prevent them from being torn loose in storms. If the area is subject to seasonal thaw, drainage ditches should be dug around open storage stacks before the ground freezes. These ditches are laid out in such a way as to remove any surface water resulting from melting ice or snow. The following subsistence items do not deteriorate in extreme cold: bread, meat, meat products (including canned meat, canned and fresh fish, fats), dried beans and peas, dried vegetables, dried fruit, macaroni, spaghetti, noodles, rice, barley, oats, wheat, sugar, coffee, tea, salt, spices, and dehydrated foods. The following items freeze easily but do not deteriorate: canned vegetables, mixed fruit preserves prepared in water or their own juice, sauerkraut, and beans in cans or barrels, marmalade, and honey.

68. TROPICS

In the tropics, rains and damp climate rot stored subsistence and the hot sun causes cans to sweat and rust and the contents to spoil. Supplies must be protected against torrential downpours. Depot installations should be planned to withstand heavy winds.

a. Location of Depot. A subsistence depot in the tropics should be located on level ground or ground that can be leveled and cleared of rubbish and undergrowth with a minimum of equipment and man-

power. The ground should be high and have natural drainage or be so located that drainage can be provided. The depot should be located on terrain which affords relative security from enemy action and should be easily accessible to speed the handling of supplies.

b. Open Storage. When open storage is used, adequate dunnage must be provided. The dunnage should be high enough to permit the accumulation of water without damage to stored supplies. Materials for dunnage include logs (8 to 10 inches in diameter), boards, stones, cordwood, or fabricated pallets. Logs should be spaced 2 or 3 feet apart and covered with metal or board dunnage 3 to 6 inches apart. Coral may be used as a surfacing agent but should not be used as a substitute for dunnage. Supplies stacked directly on coral rust and absorb moisture. A combination of coral and dunnage provides a maximum of protection. In addition to dunnage, paulins must be used to protect the supplies from weathering. These paulins must be placed properly in order to give middle and top ventilation. If placed directly over supplies, they trap hot air within the stack and cause dampness, corrosion, and damage. A paulin stretched over a wooden framework and not put directly on the stacks or a paulin supported by uprights dug into the ground will reduce stack temperatures. Construction of the framework varies with the individual need. The paulins should be stretched clear of the sides of the supplies to prevent the rain from running down the stacks and seeping into items in storage.

c. Closed Storage. In closed storage, buildings

should be as open to the air as possible and should parallel prevailing winds. Roofs of thatch or chicken wire are desirable. Containers of like items and dimensions should be arranged in stacks not exceeding 10 feet long by 6 feet wide. By placing the end of one container opposite the side of another, vacant spaces can be left in the stack for air circulation. A minimum of 2 feet should be left between the roof and stacks. Whenever the weather permits, the doors and other vents should be opened.

CHAPTER 7

SECURITY, CAMOUFLAGE, AND DEMOLITION

69. SECURITY

a. Company Security. The commander of the subsistence depot company will develop plans for the security of the company or cooperate with the commander of the depot to which the company is attached in the development of plans. When operating under a quartermaster battalion, the company security and defense measures will be coordinated by the battalion with those of subordinate or adjacent units.

- (1) *Pilferage and sabotage.* The commander of the subsistence depot company is responsible for maintaining an interior guard to provide security against pilferage and sabotage.
- (2) *Fire.* The commander of the subsistence depot company is responsible for the preparation of plans to prevent or combat fires. A unit fire marshal will be designated and all personnel will be instructed in fire-prevention and fire-fighting measures.

b. Bivouac Security. Maximum dispersion of all vehicles, personnel, and equipment is necessary. Posting of adequate guards and gas sentries and con-

struction of slit trenches and other hasty fortifications are required.

e. Individual Security.

- (1) *Proficiency with arms.* Each man in the subsistence depot company must be proficient in the use of individual weapons.
- (2) *Chemical attack.* Protection against chemical warfare requires thorough training in the identification of toxic gases and in the use of the gas mask and other protective equipment issued to the individual soldier.
- (3) *Mines and booby traps.* Detection and deactivation of mines and booby traps is a technical subject which should be studied (app. I, par. 4).

70. CAMOUFLAGE

Concealment of personnel, equipment, and storage supplies from enemy observation by the effective use of camouflage is the principal defense of the subsistence depot company. A storage area in or near the combat zone should blend as much as possible with the surroundings (fig. 17).

a. Supplies. In inhabited localities, depot supplies may be stored in buildings but care must be taken to avoid signs of activity. Camouflage nets may be draped over supplies or suspended over any necessary turn-offs in the roads which may require camouflage. Boxes may be piled to resemble small additions to existing buildings or stacked in excavations and covered over. When available, derelict stone fences, weapons pits, slit trenches, or vehicle pens offer excellent chances for concealment for large

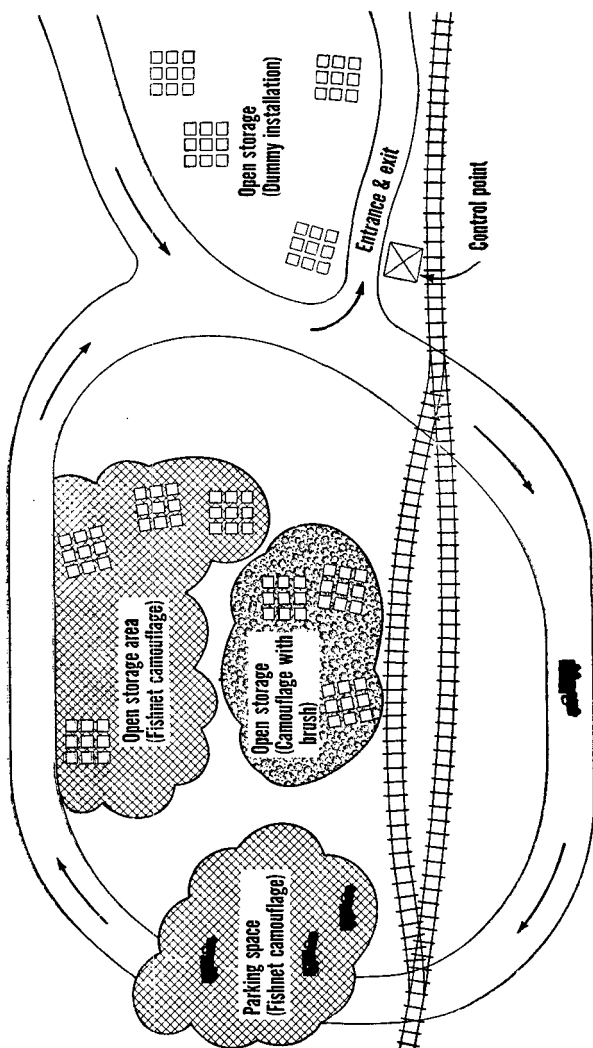


Figure 17. Camouflage of a subsistence depot in the combat zone.

quantities of supplies by using the existing works and judiciously adding to them. Supplies may be laid down on existing vehicle tracks and also laid down to imitate new tracks. The top of the stores may be painted to simulate the color tones of real tracks.

b. Installation. New paths and roads reveal to the enemy the location of a new installation and should be kept to a minimum. Whenever a new path or road is required, it must connect two points of apparent activity. Existing buildings, tents, or other installations should not be camouflaged, since any effort to conceal an installation already known to the enemy merely serves to attract his attention to it. Tents should be placed under cover or blended in with hedges or bushes through the use of nets. Access to buildings or tents must be carefully planned to avoid making new paths. Vehicles and personnel must stay on paths and roads for maximum concealment.

71. DEMOLITION

Demolition of supplies and equipment is a command function and is done only on orders from higher authority. Demolition must be as rapid and simple as possible and must render all supplies unserviceable. Special methods of demolition are suggested for different types of supplies and equipment.

a. Subsistence Supplies. Explosives may be used to destroy subsistence supplies. Thermite bombs or other flammables will be used to ignite and destroy items. Sand, salt, or oil may be thrown on perishable subsistence. If circumstances prohibit the use of

fire or explosives, items may be sprinkled with chloride of lime or gasoline. Extreme caution must be used with gasoline to prevent accidents, since gasoline vapor mixed with air is highly explosive. Canned goods may be punctured with ax or bayonet when time permits.

b. Vehicles and Warehousing Equipment. Warehousing equipment will be destroyed by fire, explosives, or axes. Vehicles may be demolished by using an ax or a sledge hammer, if available. The carburetor, spark plugs, distributor coil, valves, transmission, and engine block are vital parts of the motor vehicles for destruction. An ax should be used on trailer tires. When demolishing vehicles and materials-handling equipment, the same parts, such as radiator or transmission, will be destroyed on all like units to prevent assembly of a complete unit from wrecked equipment.

c. Records and Equipment. All records that cannot be removed will be burned. Miscellaneous equipment will be destroyed by fire or axes.

CHAPTER 8

MOVEMENT

Section I. MOTOR

72. REQUIREMENTS

The subsistence depot company is a fixed unit. When personnel and equipment of the company must be moved by motor, the transportation section of the army or base depot to which the company is assigned or attached will coordinate movement arrangements. These arrangements will normally consist of furnishing and supervising necessary motor units, providing assistance in preparing the movement schedule and tables, and coordinating traffic control with the traffic control agencies of its own and higher headquarters. In many instances, personnel will be transported to a forward location to establish a new depot, while heavy equipment of the company will be left at the original depot so that operations can be carried on without interruption. Usually the heavy equipment is more easily transported to the new location by rail. At times equipment for the new depot may be shipped to the location from stocks at general depots in the theater of operations or from the United States.

a. Company. For transportation requirements to move the equipment of the subsistence depot com-

pany by motor see appendix III. Personnel can be transported in the three organically assigned trucks plus one $\frac{3}{4}$ -ton 4 x 4 cargo truck and six $2\frac{1}{2}$ -ton 6 x 6 cargo trucks.

b. Depot Headquarters. When the depot headquarters (office of the depot commander, company headquarters, and the depot headquarters platoon) is to move, organic transportation will be adequate for personnel and maintenance and organizational equipment. Seven additional $2\frac{1}{2}$ -ton 6 x 6 trucks will be required to move the special equipment.

c. Operating Platoon. Since no organic transportation is provided the operating platoons, three $2\frac{1}{2}$ -ton 6 x 6 trucks will be required from army or from the appropriate headquarters in the communications zone in order to move the personnel and maintenance and organizational equipment. Eight additional $2\frac{1}{2}$ -ton 6 x 6 trucks will be required to move the special equipment.

73. PLAN FOR MOVEMENT

a. Administrative Arrangements. When orders are received to move the depot personnel to a new location, the company commander will make the necessary administrative arrangements within the company. In making loading preparations he will obtain necessary additional trucks from army or base depot. He will organize the personnel into groups to fit the transportation provided. All equipment that will be transported will be packed, marked, and properly loaded on the trucks. The company commander will assemble the personnel of the convoy, outline and discuss the route to be followed, estab-

lish march security, and assign specific march duties to personnel. The plan for motor movement will include provision for food service, medical care, and rest en route. Where a long trip is scheduled, rest stops should be planned. When the convoy has reached its destination, the company commander will make plans for the unloading of equipment and reuniting of troops and equipment.

b. Capacity. The capacity of the motor vehicles for the movement depends upon the type of vehicles and the method of carrying personnel. Maximum capacities for trucks carrying personnel with individual weapons, packs, and extra ammunition, with no additional cargo, are as shown below:

Trucks:	Men
1/4-ton-----	3
3/4-ton-----	8
2 1/2-ton or larger*-----	25

c. Assignment of Jobs.

- (1) *Drivers.* Drivers will drive the vehicles to which they are normally assigned. When trucks other than organic make the trip, they will be driven by personnel provided by higher authority.
- (2) *Reconnaissance Party.* A reconnaissance party should be designated to select halting and quartering areas in advance.
- (3) *Clean-up Party.* A clean-up party will be designated to inspect quartering areas and halt sites after they have been evacuated by the convoy.

*On long hauls, only 20 men with equipment should be loaded.

d. Rate of March. When tactical considerations do not interfere, the following may be used as a guide in planning an average day's motor march:

- (1) Preparation for march (including time for breakfast, inspection of vehicles, and breaking of camp): 1 hour.
- (2) Running time (including all halts except noon halt): 7 to 8 hours.
- (3) Halt for midday meal and refueling: 1 hour.
- (4) Inspection and servicing of vehicles after arrival at camp: 1 hour.
- (5) Average convoy speed should be about 25 miles per hour. The individual vehicle should not exceed 35 miles per hour.

e. Quartering. If the trip is over 200 miles (the maximum distance for a day's travel by truck), shelter must be provided. The shelter may be in bivouac, in a friendly camp or cantonment, or in billet. The requirements for quartering should be accessibility, protection against the weather, an adequate supply of water, good natural drainage, and firm dry soil.

Section II. RAIL

74. REQUIREMENTS

The transportation requirements for movement of the subsistence depot company by rail will be provided for by the Transportation Corps. Approximate car requirements for the company based on United States military railway car standards are as follows:

a. Company. Requirements for movement of the

company personnel and all equipment are two 40-foot flat cars, nine 40-foot box cars, and 6 pullman cars or troop sleepers (app. III). For short movements, 4 day coaches may be substituted for the pullman cars or troop sleepers.

b. Depot Headquarters. Requirements for movement of the depot headquarters (office of the depot commander, company headquarters, and the depot headquarters platoon) are two 40-foot flat cars, three 40-foot box cars, and 1 pullman car or troop sleeper. For short movements, 1-day coach may be substituted for the pullman car or troop sleeper.

c. Operating Platoon. Requirements for movement of one operating platoon are four 40-foot box cars and 1 pullman car or troop sleeper. For short movements, 1-day coach may be substituted for the pullman car or troop sleeper.

75. PLAN FOR MOVEMENT

a. General.

- (1) As soon as the commander of the subsistence depot company receives orders to move his company by rail, he will submit to the appropriate transportation officer a letter containing the following information:
 - (a) Orders or instructions authorizing the movement.
 - (b) Name and number of the organization.
 - (c) Numerical strength of officers, enlisted men, and vehicles.
 - (d) Amount of company property and the authorized and checkable personal baggage.

(e) Date and place of entraining.

(f) Approximate car requirements.

- (2) The transportation officer will notify the depot commander where the rail cars will be placed and when the cars will be ready for loading.

b. Entraining Officer. When the subsistence depot company is to move as a unit, the depot commander will detail one platoon leader as entraining officer, whose duties are as follows:

- (1) To make a reconnaissance of the approaches to the entraining point so that entraining may proceed without confusion, delay, or interruption.
- (2) To supervise the loading of personnel and property.
- (3) To take the necessary measures to insure speedy and satisfactory loading.
- (4) To collect and transmit checkers' lists to the appropriate transportation officer.
- (5) To make necessary assignment of men to cars. Normally, the entraining officer will allow only one entrance to each car and will instruct the men entering the cars to proceed directly to their assigned space.

c. Train Transportation Officer. The depot commander will detail one platoon leader as train transportation officer, whose duties are as follows:

- (1) To make a record of written orders for transportation.
- (2) To account for all personnel on the train.
- (3) To prepare a bill of lading for organizational equipment in accordance with the

instructions in AR 55-145. This bill of lading will usually be turned over to the transportation officer at the destination.

- (4) To designate one noncommissioned officer as checker for each car. The checker will list the property loaded and record the data required for the preparation of the bill of lading.

d. Baggage Detail. The depot commander will see that a baggage detail is formed to load and unload the baggage.

e. Guard Detail. The depot commander will see that a guard detail is formed. At least two men should ride in each unsealed boxcar to guard the company property. Whenever possible, the cars should be sealed.

f. Mess Provisions. The depot commander should find out whether troops should carry rations with them. A mess officer should be appointed when necessary to supervise the preparation of meals.

g. Departure. The depot commander will make a report of the exact time of departure to the appropriate rail movement section of communications zone immediately before departure. Upon arrival at the destination, he will report the exact time and date of arrival. In his report he will indicate the movement by routing number only.

h. Orders. The depot commander will issue orders to his company in conformity with AR 55-155.

i. Delays. The depot commander will maintain a complete record of delays en route. The record should include any occurrences that compel the use of railway equipment after the scheduled hour of

arrival at destination. Such a record will answer questions that may arise as to the improper use of railway facilities.

j. Inspection. The depot commander will make an inspection of railway equipment that has been vacated in order to determine whether any railway property has been damaged or unlawfully removed. He will report the results of this inspection to the commanding officer of the new home station.

k. Detraining. Troops should be told the arrival time so they will be ready to detrain promptly. The officers and guard detail will detrain first. The baggage detail will be left behind to unload the baggage and bring up the property. When the quartering area is distant from the detraining point, property should be unloaded by the entire company to save time. If practicable, noncommissioned officers who acted as checkers when loading will serve in the same capacity when unloading.

76. PACKAGING

a. General.

- (1) The commander of the subsistence depot company must make sure that all company equipment for rail shipment is packaged and packed in such a manner that it will withstand unusual transportation, handling, and climatic conditions. He will see that each shipment conforms to all the requirements necessary to insure its arrival at its destination in sound condition.
- (2) Field ranges, fuel containers, and other items in which gasoline or other solvents are used, must be drained and flushed before

being boxed and crated. A certificate that this has been accomplished will be attached to crates containing the items and to the packing list.

b. Shipping Containers.

- (1) *Weight.* Containers should be as light as possible consistent with the nature of the items, with the handling and distribution conditions, and with the manner of use in order to permit handling by the smallest number of individuals.
- (2) *Cubage.* Shipping containers should have a minimum cubage in order to conserve shipping and storage space. Cubage can be reduced by disassembling projecting parts, arranging them in a compact manner, wrapping and packaging them, and placing them securely within the shipping container. No part should be removed unless it can be readily reassembled. Cubage data are given in appendix III.

c. Packaging Procedures.

- (1) *Wrapping.* Commercial wrapping paper will be used when possible for wrapping items.
- (2) *Tying.* Twine should be used in tying packages, interior containers, and articles that are to be packed in shipping containers. If the packages are large and bulky, the twine should have a breaking strength of not less than 105 pounds.
- (3) *Bolting.* Items that do not completely fill shipping containers should be bolted to pre-

vent movement inside the containers. Items having projecting parts that might be broken or might puncture the container should be rigidly supported or suspended. The clearance between projecting parts and the inside face of the containers should be at least 1 inch.

77. BLOCKING AND BRACING

a. Blocks. One block outside each vehicle wheel is ordinarily enough to prevent lateral movement. As an additional precaution, an inside block should be used and a rope or strap of burlap or canvas should be passed over the felloe, one turn being made around each block. The lumber used for blocks must be not less than 2 by 4 inches (app. IV).

b. Chocks. Security against longitudinal movement requires two chocks to each wheel. Chocks must be at least 3 inches high.

c. Nails. Fortypenny nails should be used to secure chocks and blocks to the floor of a car.

d. Wire. Heavy wire (8-gauge black annealed wire or its equivalent) should be used for securing loads.

Section III. AIR

78. REQUIREMENTS

a. Orders. Orders for movement of the subsistence depot company by air will be issued by higher authority to the depot commander and to the commander of the air task force supplying transportation. The orders normally will comprise—

- (1) Composition of the unit.
- (2) Designation of departure airport.
- (3) Date and hour transport begins.
- (4) Destination. (If this information is secret, the headquarters issuing the orders will classify it as such.)
- (5) Method of movement from present site and quartering arrangements at or near airport.
- (6) Restrictions on amount or type of equipment and supplies to be carried.
- (7) Probable length of time during which the unit must be self-sufficient.
- (8) Provision for subsequent supplies.

b. Depot Commander's Report. The depot commander will prepare a report for the Air Force commander who is charged with supply of air transportation for the movement (DA Pam. 29-15). The report will contain the following information:

- (1) Strength and composition of the unit.
- (2) Total weight of supplies and equipment.
- (3) Name, cubage, weight, and number of bulky items.
- (4) Amount of baggage.

79. PLAN FOR MOVEMENT

a. Information.

- (1) *Initial.* In compliance with orders from higher authority, the depot commander will compile information on the following:
 - (a) Method of loading desired.
 - (b) Initial operations at destination, such as arrangements, procedure of ground transportation, and tactical dispersion.

(2) *Destination.* If orders do not include specific items of supply and equipment that must be excluded from air shipment, the depot commander will determine the following:

- (a) Tentage available at destination.
- (b) Equipment available at destination.
- (c) Vehicles available at destination which may be utilized.
- (d) Supplies available at destination.

b. *Procedure.* The following operations must be considered by the depot commander:

- (1) Movement of the unit from present location to vicinity of departure airport, for which marching and loading tables will be necessary.
- (2) Movement to loading points at departure airport.
- (3) Loading of trucks to correspond to the loading of airplanes.
- (4) Movement to loading points, with consideration given to such factors as time, route, traffic control, loading arrangements, and guides.
- (5) Loading of airplanes.
- (6) Movement to destination timetables.

c. *Packaging.* Procedures for packaging are similar to those discussed in paragraph 76.

d. *Personnel and Baggage.* Preparations for movement of personnel and baggage will be determined by the type of airplanes used. Baggage may be carried in the same plane as personnel or in a separate plane.

CHAPTER 9

CONSERVATION OF MANPOWER

80. LIFTING AND CARRYING

The work area should be firm, free of debris, and clear of water, oil, or any substance that might cause a slip or fall. Lifting should be done by pushing up with the leg muscles. This takes the strain off the back muscles. Lifting should be done gradually, steadily, without jerking motions. When a fiber-board carton is being lifted, the worker should grasp the carton underneath in a way that will not tear or strain the carton. When carrying a load, the worker must make sure that there is unobstructed vision ahead. Cartons should not be stacked too high. The maximum safe height for open storage normally is 6 feet; for closed storage, 8 feet. Gloves should be used when handling wooden cases. If a sack is torn, the hole should be repaired before lifting the sack.

81. LOADING AND UNLOADING

a. Boxcars.

- (1) Cars should be spotted to the exact warehouse, section, or door and in place at the time wanted.
- (2) When drums are to be moved, the boxcar should be spotted as near as possible to the storage location of the drums.

- (3) Brakes of the car should be set before operations begin.
- (4) Pallets should be stacked on the edge of the platform at both sides of the car door.
- (5) The car plate should be firmly secured in position. If the distance between the car and the platform is excessive or the car plate too wide to go in the car door, a car-plate stand should be used.
- (6) The maximum number of men that can usually be employed advantageously in loading and unloading one boxcar is 5 (1 checker-operator and 4 laborers). Two men can work in each car door. As the work progresses, the two ends of the car may be worked either at the same time or one end at a time.
- (7) The cargo should be carefully stowed to avoid shifting in transit.

b. Refrigerator Cars. Refrigerator cars have narrow, low doors and high sills. The floors are of slat or duck board construction which prohibits the use of wheeled vehicles. For unloading, gravity conveyors are recommended. The trailers or pallets should be loaded as close to the car entrance as possible. Refrigerator cars will be unloaded as quickly as possible and where there is a delay will be re-iced every 24 hours.

c. Trucks.

- (1) When packages weighing up to about 60 pounds are being loaded or unloaded at the rear of a truck, only two men can work

on the truck at one time without getting in each other's way.

- (2) When loading or unloading over the side of a truck, three men can be used on the truck.
- (3) Usually, at least one man on the ground for each man on the truck is necessary to pass packages along.
- (4) Heavy supplies should be placed at the bottom of the load and distributed evenly over the bed of the truck.
- (5) The cargo should be built up carefully so as to avoid shifting.
- (6) The center of gravity of the load should be kept low. If the load is too high, it may cause swaying and make the vehicle hard to drive.
- (7) If the load extends above the top of the vehicle body, it should be lashed securely to the truck (TM 21-305).
- (8) Loads must not extend over the sides or beyond the tail of the truck unless the load can be carried in no other way. If a load must extend more than 2 or 3 feet beyond the rear of the truck, it should be marked by a red flag in daytime and a red light at night.
- (9) Except when authorized, trucks must not be loaded beyond the maximum pay loads noted on the plates on the instrument panel. If the weight of the load is not known, it can be estimated with reasonable accuracy by noting the position of the rear springs.

- (10) When a considerable number of truckloads of food are to be picked up by a division during combat zone operations, quick-frozen fruits and vegetables should be loaded into the last truck leaving the warehouse.

d. Special Items.

- (1) Barrels with heads are loaded on their sides with the stack pyramided.
- (2) Barrels without heads or covered with burlap should be stood upright on their solid ends.
- (3) Sacked goods should be tied together by crossing the sack of alternate tiers in the load.

APPENDIX I

REFERENCES

1. ADMINISTRATION AND PERSONNEL

AR 35-1440	Loss of Pay during Absence Due to Diseases.
AR 340-15	Correspondence and Messages.
AR 345-400	Morning Report.
AR 345-415	Daily Sick Report.
AR 345-620	Correspondence and Publication Files.
AR 380-5	Safeguarding Military Information.
AR 600-115	Leaves of Absence and Delays.
SR 310-110-1	Orders, Bulletins, Circulars, and Memorandums Issued from Headquarters of Field Commands.
SR 320-5-1	Dictionary of United States Army Terms.
SR 320-50-1	Military Terms, Abbreviations, and Symbols.
SR 615-20-1	Service Record.
SR 615-25-1	Classification.
SR 615-25-15	Military Occupational Specialties.
SR 615-25-20	Career Fields.
SR 735-150-3	Property Accountability, Statement of Charges.

SR 745-45-5	Report of Damaged or Improper Shipment.
TM 12-250	Administration.
TM 12-255	Administrative Procedures.
TM 12-260	Personnel Classification Tests.
TM 14-501	Officers' Pay and Allowances and Others of Equivalent Status.
TM 14-502	Pay and Allowances of Enlisted Personnel.
TM 19-500	Enemy Prisoners of War.
DA PAM 21-5	Personal Affairs of Military Personnel and Aid for their Dependents.

2. FOOD SERVICE

AR 30-2220	Recovery on Subsistence Stores.
TM 10-402	Mess Management.
TM 10-206	Kitchen Cars, Supplies, Equipment, and Rations.
TM 10-405	The Army Cook.
TM 10-407	Cutting of Beef.
TM 10-408	Cutting and Preparing Lamb.
TM 10-412	Recipes.
TM 10-610	Refrigeration.
QM 5-56	DA Supply Catalog.

3. INDEXES

SR 110-1-1	Index of Army Motion Pictures and Film Strips.
SR 310-20-3	Index of Army Training Publications (Field Manuals, Training Circulars, Firing Tables and Charts, Army Training Programs,

Mobilization Training Programs, Graphic Training Aids, Joint Army-Navy Air Force Publications, and Combined Communications Board Publications).

SR 310-20-4 Index of Technical Manuals, Technical Regulations, Technical Bulletins, Supply Bulletins, Lubrication Orders, Modification Work Orders, Tables of Organization and Equipment, Reduction Tables, Tables of Allowances, Tables of Organization, and Tables of Equipment.

SR 310-20-5 Index of Administrative Publications (Army Regulations, Special Regulations, Readjustment Regulations, Joint Army-Air Force Adjustment Regulations, General Orders, Bulletins, Circulars, Commercial Traffic Bulletins, Joint Procurement Circulars, Department of the Army Pamphlets, and ASF Manuals).

SR 310-20-6 Index of Blank Forms and Army Classification Tests.

4. MILITARY TRAINING

FM 5-15 Field Fortifications.

FM 5-20 Camouflage, Basic Principles.

FM 5-20A Camouflage of Individuals and Infantry Weapons.

FM 5-20C	Camouflage of Bivouacs, Command Posts, Supply Points, and Medical Installations.
FM 5-20G	Camouflage of Rear Areas and Fixed Fortifications.
FM 5-20H	Camouflage Materials and Manufacturing Techniques.
FM 5-32	Land Mine Warfare.
FM 20-15	Tents and Tent Pitching.
FM 21-5	Military Training.
FM 21-8	Military Training Aids.
FM 21-10	Military Sanitation.
FM 21-11	First Aid for Soldiers.
FM 21-15	Individual Clothing and Equipment.
FM 21-20	Physical Training.
FM 21-25	Elementary Map and Aerial Photograph Reading.
FM 21-30	Conventional Signs, Military Symbols, and Abbreviations.
FM 21-40	Defense Against Chemical Attack.
FM 22-5	Drill and Ceremonies.
FM 23-7	U. S. Carbine, Caliber, .30, M1 and M1A1.
FM 23-30	Hand and Rifle Grenades.
FM 26-5	Interior Guard Duty.
TM 3-205	The Gas Mask.
TM 3-220	Decontamination.
DA PAM 20-21	The Army School Catalog.
ATP 10-226	Mobilization.
DA PAM 21-23	Mines and Booby Traps.

5. MOTOR OPERATION AND MAINTENANCE

AR 750-5	Maintenance Responsibilities and Shop Operation.
AR 700-105	Motor Vehicles.
AR 700-240	Materials Handling Equipment.
FM 25-10	Motor Transport.
TM 9-840	$\frac{3}{4}$ Ton 4 x 4 Cargo Truck M37; Utility Truck M42; Ambulance Truck M43; and Telephone Installation, Light Maintenance, and Cable Splicing Truck V-41 GT, (Dodge).
TM 9-883	1-Ton, 2-Wheel Cargo and Water Trailers.
TM 9-2700	Principles of Automotive Vehicles.
TM 9-2800	Military Vehicles.
TM 21-300	Driver Selection, Training, and Supervision, Wheeled Vehicles.
TM 21-305	Driver's Manual.
TM 37-2810	Motor Vehicle Inspection and Preventive Maintenance Services.
LO 9-840	(Lubrication order for M37 $\frac{3}{4}$ -ton 4 x 4 cargo truck).
LO 9-883-1	Trailer, 1-Ton Payload, 2-Wheel, Water Tank, 250-Gal.
TM 9-801	Truck $2\frac{1}{2}$ -Ton, 6 x 6 (GMC CCKW-352 and 353) and Truck, $2\frac{1}{2}$ -Ton, 6 x 4 (GMC CCW-353).
TM 9-807	$2\frac{1}{2}$ -Ton, 6 x 6 Truck and $2\frac{1}{2}$ - to 5-Ton, 6 x 4 Truck (Studebaker Models) US 6 and US 6 x 4.
TM 9-809	Truck, $2\frac{1}{2}$ -Ton, 6 x 6 Cab Forward Model AFK WX-353.

TM 9-819 2½-Ton, 6 x 6 Cargo Truck, M34
(Reo).

6. PACKING SUBSISTENCE

TM 5-614 Packing and Crating, Repairs and
Utilities.
FM 10-13 Quartermaster Reference Data.

7. SPECIAL OPERATIONS

FM 31-25 Desert Operations.
FM 70-10 Mountain Operations.
FM 70-15 Operations in Snow and Extreme
Cold.
FM 72-20 Jungle Warfare.

8. STOCK CONTROL AND PROPERTY ACCOUNTING

AR 35-6520 Property Accountability and Re-
sponsibility.
AR 35-6560 Receipt, Shipment, and Issue of
Property.
SR 36-10-2 Reports of Audit—Military Ac-
counts.
SR 711-20 Supply Economy.
SR 725-10-2 Processing Requisitions.
SR 735-150-1 Accounting for Lost, Damaged, or
Destroyed Property.
SR 780-40-1 Stock Control and Supply Proce-
dures.
TM 38-705 Army Shipping Document.
TM 10-250 Storage of Quartermaster Sup-
plies.

- TM 38-400 Stock Control Manual for Stations.
- TM 38-402 Storage in the Zone of Interior.

9. SUPPLY OPERATIONS

- FM 10-10 Quartermaster Service in Theater of Operations.
- FM 10-13 Quartermaster Reference Data.
- TM 10-250 Storage of Quartermaster Supplies.
- TM 38-402 Storage in the Zone of Interior.
- SR 30-20-10 Storage of Perishable Subsistence Supplies.
- SR 780-40-1 Stock Control and Supply Procedures.

10. TRANSPORTATION

- AR 55-120 Transportation of Individuals.
- AR 55-130 Transportation of Troops and Other Groups; General.
- AR 55-135 Transportation of Troops, Railway Equipment.
- AR 55-145 Transportation of Troops; Entraining, Duties En Route, and Detraining.
- AR 55-155 Transportation of Public Property (Except Animals) and Remains.
- SR 55-720-1 Preparation for Oversea Movement of Units (POM).
- DA PAM 29-10 Movement Regulations for Movement of Units within Zone of Interior.

DA PAM 29-11 Movement Regulations for Oversea Movement of Units, Casuals, Replacements, and Individuals.

11. WAREHOUSE EQUIPMENT

AR 700-240	General, Materials Handling Equipment.
TM 10-250	Storage of Quartermaster Supplies.
TM 10-1619	Quartermaster Materials Handling Equipment.
TM 10-1637	Tractor, Wheeled, Gasoline (Clark-Clarktor 6).
TM 10-1640	Truck, Fork Lift, Gasoline (Clark "Planeloader").
LO 10-1637	Tractor, Wheeled, Gasoline (Clark-Clarktor 6).
LO 10-1640	Truck, Fork Lift, Gasoline (Clark "Planeloader").
QM 7 & 8 MHE 29	DA Supply Catalog, Tractor, Wheeled, Gasoline (Clark "Clarktor-6").
QM 7 & 8 MHE 59	DA Supply Catalog, Truck, Fork Lift, Gasoline (Clark "Planeloader").

APPENDIX II

MINIMUM TRAINING SCHEDULE

1. GENERAL

The following minimum training schedule is planned to give systematic and progressive training for personnel of the quartermaster subsistence depot company. Only essential matter required to train the soldier for his place in a team in the shortest possible time consistent with efficiency is given in the schedule. The subjects, based on a 624-hour training schedule, are furnished as a guide only and must be varied to meet the immediate training requirements.

2. BASIC INDIVIDUAL TRAINING—ENTIRE COMPANY (110 HOURS)

Hours	Subjects	Essential study references	Training aids
3	Military Courtesy and Customs.	AR 260-10, AR 600-25, AR 600-35, SR 600-40-1, FM 22-5, FM 26-5, par. 47.	TF 21-2048.
2	Employment of the Armed Forces.	FM 100-5, FM 100-10, FM 100-15.	
12	Dismounted Drills and Ceremonies.	FM 22-5, chs. 6, 9-----	TF 7-249, TF 7-560, TF 7-561, TF 7-1436.
6	Inspections, including Clothing, Tent Pitching, Bivouacs, and Patrolling.	AR 40-205, par. 3; AR 220-70, AR 600-40, AR 850-5, secs. I, II, III; FM 21-15, pars. 2-5, 8, 16, 22, 29, 31; FM 22-5, pars. 180-182; TM 8-220, pars. 248-249; TM 9-1275, pars. 29, 30.	
6	Supply Economy and Care of Clothing, Equipment, and Quarters.	AR 30-3040, AR 32-160, AR 35-6520, AR 615-40, AR 711-20, AR 735-150, AR 850-126. SR 1-30-1, SR 32-20-1, SR 32-160-40, SR 725-10-2, SR 735-150-1, SR 735-150-3, FM 21-15, sec. I; FM 23-5, pars. 10-19; FM 23-7, pars. 12-21;	GTA 21-9, GTA 21-10. TF Misc. 1113. TF FS 12-4.

4	First Aid-----	TB QM 32 (Use with FM 21-15); SB 10-275, Armed Forces Talk 266.	GTA 8-1, GTA 8-5.
1	Personal Hygiene-----	FM 21-11-----	GTA 8-17, TF 8-155.
8	Elementary Map Reading-	FM 21-10, pars. 1-30, 202-210----- FM 21-25, chs. 1-3, 5-10, 12, 13; FM 21-30, part II, chs. 7, 8, 9; FM 21-75, pars. 18-20, 33, 34. FM 30-5, pars. 2-5 <i>a</i> , 7, 8 <i>b</i> , 9, 10-16, 18 <i>b</i> ; FM 100-5, pars. 240-263, 947-954.	TF 21-2071, TF 21-2072, TF 21-2073.
2	Elementary Intelligence Training.	AR 775-10, SR 385-310-1, FM 23-7, pars. 7-35, 48-55, 47 <i>b</i> , 48.	TF 30-1523, TF 30-2102.
37	Individual Weapons Qualifications (Car- bine).		GTA 9-1, GTA 9-61, TF 7-652, TF 7-969, TF 7-1094, TF 7-1100, TF 7-1101, TF 9-1172, TF 9-1206, TF 9-1445, FS 9-97, FS 9-155, FS 9-156.
6	Grenades (All types)-----	FM 23-30.	
15	Light Machine Gun Fa- miliarization.	FM 23-55, pars. 2, 4, 5, 8, 9-17, 32- 35, 37, ch. 3.	
8	Proficiency Testing.		

3. UNIT TRAINING (356 HOURS)

Hours	Subjects	Essential study references	Training aids
12	Unit Organization-----	T/O & E 10-357, FM 10-30, FM 10-53.	
16	Organizational Equipment.	AR 700-240, FM 10-30, TM 10-1619 TM 38-402, pars. 16-18.	
2	General Supply-----	FM 100-10, TM 12-250, TM 12-255, TM 38-220, TM 38-403.	GTA 10-1
48	Storage-----	SR 30-20-10, FM 10-30, TM 10-250, TM 38-402.	FB 227; TF 10-2095.
8	Subsistence Supplies-----	FM 10-30, TM 10-250, TB QM 53.	
24	Receipt-----	FM 10-30, TM 10-210, TM 10-250.	
24	Issue-----	FM 10-30, TM 10-250.	
2	Movement by Air-----	FM 10-30, FM 31-40, FM 100-10, TM 71-210, DA PAM 29-16.	TF 10-1239, TF 10-1240.
2	Movement by Rail-----	FM 10-30, TM 10-205, DA PAM 20-14, DA PAM 20-7.	
8	Loading and Unloading---	FM 10-30, TM 10-250-----	TF 10-1239, TF 10-1240, TF 10-1241.
48	Property Accountability --	FM 10-30, TM 10-250, TM 38-400--	TF Misc. 1112, FS 38-8, FS 38-9.

152	Depot Operations-----	FM 10-30-----	FS 10-110, FS 10-111, FS 38-4.
10	Combat Training-----	FM 21-75-----	

4. CADRE TRAINING (158 HOURS)

Hours	Subjects	Essential study references	Training aids
4	Unit Organization-----	T/O & E 10-357, FM 10-30, FM 10-53.	
8	Organizational Equipment-----	AR 700-240, FM 10-30, TM 10-1619, TM 38-402, pars. 16-18.	
4	General Supply-----	FM 100-10, TM 12-250, TM 12-255, TM 38-220, TM 38-403.	GTA 10-1.
8	Subsistence Supplies-----	FM 10-30, TM 10-250, TB QM 53.	
12	Receipt-----	FM 10-30, TM 10-210, TM 10-250.	
24	Storage-----	SR 30-20-10, FM 10-30, TM 10-250, TM 38-402.	
12	Issue-----	FM 10-30, TM 10-250.	
2	Movement by Air-----	FM 10-30, FM 31-40, FM 100-10, TM 71-210, DA PAM 29-16.	TF 10-1239, TF 10-1240.
2	Movement by Rail-----	FM 10-30, TM 10-205, DA PAM 20-14, DA PAM 20-7.	
4	Loading and Unloading-----	FM 10-30, TM 10-250-----	TF 10-1239, TF 10-1240, TF 10-1241.

24	Property Accountability--	FM 10-30, TM 10-250, TM 38-400	TF Misc. 1112, FS 38-8, FS 38-9.
5	Combat Training-----	FM 21-75.	
	<i>Methods of Instruction</i>		
3	Introduction to Teaching--	FM 21-5, chs. 4, 5.	
1	Methods of Presentation--	FM 21-5, chs. 6, 9.	
2	The Conference-----	FM 21-5, pars. 100-104.	
5	Effective Demonstration--	FM 21-5, pars. 105-109.	
4	Methods of Application--	FM 21-5, ch. 7.	
1	Student-Classroom Control.	FM 21-5, pars. 2, 67-74.	
3	Principles of Testing-----	FM 21-5, ch. 8.	
6	Lesson Planning-----	FM 21-5, ch. 5.	
2	Training Aids-----	FM 21-5, ch. 10.	
4	Effective Speech-----	FM 21-5, ch. 12.	
18	Practical Exercise.		

APPENDIX III **TRANSPORTATION REQUIREMENTS FOR QUARTERMASTER SUBSISTENCE DEPOT COMPANY**

Equipment		Transportation requirements for movement of equipment				Gross weight in short tons (2000 pounds)	Transportation cubage required	
Category	Code	Highway Number of 2½-ton trucks¹	Rail Number 40-foot cars		Cubic feet		Measure-ment tons	
			Box	Flat				
Hq, kitchen, and maintenance	2 1	---	1/8	---	4.5	460	11.5	
Organizational	3 2	---	1/8	---	4.9	529	13.0	
Standard vehicles	4 3	---	---	2	9.6	2,613	65.3	
Special	5 4	6 35	8	---	108.7	23,668	591.7	
TOTAL	---	---	---	---	127.7	27,270	681.5	

¹ Trucks are in addition to T/O & E vehicles for movement of equipment.

² Equipment in T/O & E 10-357 (Aug 49) defined as Minimum Essential Equipment (SR 55-720-1 (7 Nov 49)) and listed in paragraph 19 of the SR to be shipped TAT (To Accompany Troops).

³ Equipment shown in T/O & E 10-357 (Aug 49) less: (a) Code 1 equipment; (b) Equipment carried on the individual, such as carbines, compasses, watches; and (c) Standard vehicles, special equipment, and those tools and accessories shipped with vehicles and special equipment.

⁴ Comprises all standard vehicles listed in T/O & E 10-357.

⁵ Comprises all equipment items except those which are listed as Codes 1, 2, and 3 under Equipment.

⁶ Transportation must be furnished for 18 fork lift trucks.

APPENDIX IV

BLOCKING AND BRACING FOR RAIL SHIPMENT

METHOD 1

Place eight blocks (A), one to the front and one to the rear of each wheel (fig. 20). Nail the heel of each block to the car floor with five forty-penny nails. Toenail that part of each block under the tread to the car floor with two forty-penny nails. Put two blocks (B) against the outside face of each wheel. Nail the lower block to the car floor with three forty-penny nails and the top block to the lower block with three forty-penny nails. When bracing the fork lift truck, pass four strands (two wrappings) of No. 8 gage black annealed wire (C) around each prong of the fork at the front of the fork lift truck and through a stake pocket on the flatcar. Tighten the wires enough to remove slack.

METHOD 2

Place four blocks (D), one to the front and one to the rear of each set of wheels (fig. 21). These blocks must be at least 8 inches wider than the over-all width of the vehicle at the car floor. Using 16 blocks (E), place two against blocks (D) to the front of each wheel and two against blocks (D) to the rear of each wheel. Nail the lower cleat to the floor with three forty-penny nails, and then nail the top cleat

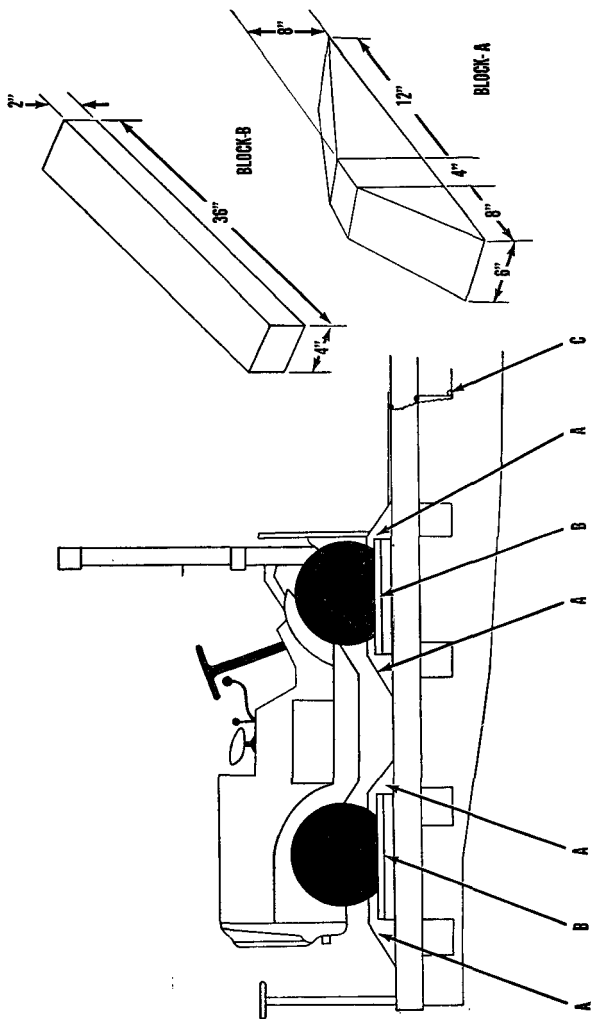
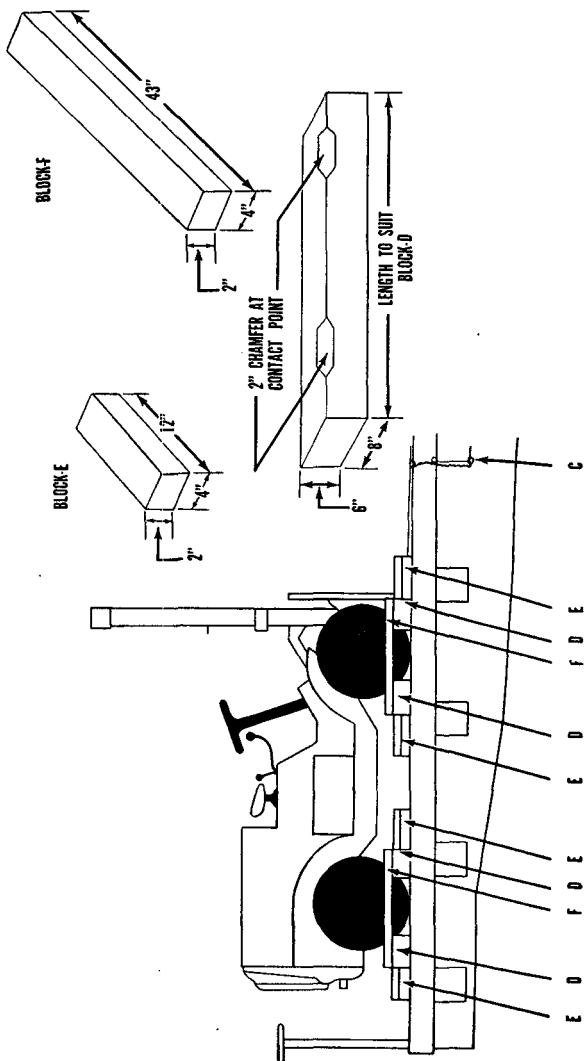


Figure 18. Blocking and bracing.



② Method 2
Figure 18—Continued.

to the cleat below with three forty penny nails. Nail four cleats (F) on the outside of each wheel to the top of each block (D) with two forty penny nails. When bracing the fork lift truck, pass four strands (two wrappings) of No. 8 gage black annealed wire (C), around each prong of the fork at the front of the fork lift truck and through a stake pocket on the flatcar. Tighten the wires enough to remove slack.

APPENDIX V

UNIT PROFICIENCY STANDARDS

1. BASIC

- a.* Do the men have knowledge of first aid?
- b.* Are the men trained in map reading?
- c.* Are the men trained in proper conduct if captured?
- d.* Are the men trained in use of gas masks?
- e.* Are the men oriented in the mission of the unit?
- f.* Are the men trained in the proper use of their weapons?
- g.* Have the men completed their basic military training?

2. TECHNICAL

Are the men able to perform their primary mission? (Determine by spot check of special tasks set up for each.)

- a.* Chief subsistence specialist.
- b.* Carpenters.
- c.* Wheel-vehicle mechanics.
- d.* Refrigeration specialists.
- e.* Checkers.
- f.* Supply clerks.
- g.* Fork lift operators.
- h.* Warehousemen.

3. HOUSEKEEPING AND SUPPLY

a. Is the unit supply section trained to function properly?

b. Is the unit mess section trained to function properly?

c. Is the unit administrative section trained to function properly?

4. PRACTICAL TEST

Set up problems involving conduct of the unit in the following operations:

a. *Depot Site.* Selection of depot site and setting up of depot for operation.

(1) Does the site afford the best facilities for properly servicing the troops?

(2) Are roads and road conditions used to advantage?

(3) Is the site adequately camouflaged?

(4) Are items of supply properly dispersed?

b. *Defense of Bivouac.*

(1) Is the plan of defense tactically sound?

(2) Are all personnel armed with their permanently assigned weapons?

(3) Does the plan for issue of arms and ammunition meet the requirements of speed, safety, and the proper safeguarding of weapons?

(4) Is the plan adequate for defense against ground troops? Paratroops? Air attacks?

c. *Demolition.*

(1) Is the demolition plan tactically sound?

(2) Is the demolition plan technically sound?

- (3) Are all personnel acquainted with the demolition plan and capable of performing their mission?

d. Showdown Inspection.

- (1) Is organizational equipment complete and serviceable?
- (2) Is individual equipment complete and serviceable?

e. Unit Performance. With due consideration to the above problems, determine the following:

- (1) Can the unit perform its primary mission?
- (2) Can the unit service a designated number of troops?
- (3) Can the platoon perform its primary mission when it is operating as a separate unit?

f. Ground Action. Set up a problem involving the unit in offensive ground action as a combat unit (covering tactical training of infantry soldier). Grade the unit on its performance—satisfactory, very satisfactory, excellent.

g. Check of Equipment. Check operation and maintenance of the organizational equipment of the unit.

- (1) Are the vehicles properly operated?
- (2) Is the equipment properly maintained?
- (3) Is organizational maintenance practiced?
- (4) Are technical maintenance and operational instructions provided for each vehicle?

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